

# The Mining Journal

## AND COMMERCIAL GAZETTE.

No. 173.—Vol. VII.]

LONDON: SATURDAY, DECEMBER 15, 1838.

[PRICE 6D.

**MR. KIRKMAN** begs respectfully to inform his friends and the public, that the **ROYAL DUCHY TIN AND COPPER MINES** are now divided into Five Thousand Shares of £5 each—either fully paid up, or in scrip payable by instalments in manner following: a deposit of £2 per share at the time of subscribing; £1 per share on January 15; £1 per share on April 15; and the remaining £2 per share on the 15th July, 1839—and he is authorised to dispose of a limited number at par to early applicants. The Mines are in active operation, several hundred pounds' worth of tin stuff is now at grass, and the undertaking presents a prospect of its proving, to a great extent, the most profitable in this kingdom. All letters must be post paid.

### GLAMORGANSHIRE.

#### ANTHRACITE COAL AND IRON STONE.

**TO BE LET, ON LEASE,** and entered upon immediately, **ALL THE VEINS OF ANTHRACITE COAL, STONE COAL, and CULM,** under those Farms, called "Ynyayelion," "Ynyayel," "Penygraig," and "Fenrlu," situate in the parish of Kilybelli, containing upwards of

SEVEN HUNDRED ACRES.

Two veins have been opened, and worked by level. There is scarcely any Coal Pit Timber required, the roofs being excellent. There is a Railroad belonging to the property, communicating with the Swansea Canal, which is distant about four hundred yards from the Colliery, and from thence to the seaport of Swansea is ten miles.

The CELEBRATED COVIN VEIN OF ANTHRACITE COAL lies under this estate, and there is an engine erected over it, and a Pit sunk 35 yards, being more than half of the calculated distance from the vein, by the late proprietor, in consequence of whose death the further prosecution of the works was suspended.

This Coal lies contiguous to, and is undoubtedly the same, as that which Mr. Crane has been using in making the CELEBRATED PATENT ANTHRACITE IRON, the quality of which is considered superior to any now made.

There are extensive Iron Works now erecting in the immediate vicinity of this Colliery, where the Coal from the same veins, under an adjoining estate, are to be applied for the making of Iron. There are also under this estate several

#### VEINS OF IRON ORE,

of a superior quality, which will be let with the Coal. There is no situation in the Anthracite Coal district that offers a more eligible situation for the erection of Furnaces than this property. Any quantity of land may be had for that or any other purposes, the same being situated between the River Tawe and the Swansea Canal, the water from which river may be applied to machinery for carrying on the works.

For terms and further particulars apply to Mr. Thos. Thomas, solicitor, Swansea.

**STEAM-ENGINES, PUMPS, &c., FOR SALE.**—To be Sold, by Private Contract, at East Crinnis Mine, near St. Austell, Cornwall, the following

#### MINE MATERIALS:

One 16-inch Cylinder Steam-Engine, with Steam Case, complete (length of stroke in the cylinder 16 feet 4 inches, in the shaft 7 feet 3 inches), and Four Boilers, about 45 tons.

One 41-inch Cylinder Steam-Engine, with Steam Case, complete (length of stroke in the cylinder 16 feet 4 inches, in the shaft 7 feet 3 inches), and Two Boilers, about 14 tons.

One 18-inch Cylinder Steam-Engine, with Steam Case, complete (length of stroke 4 feet), with Whim Cage, and One Boiler, about 5 tons.

One 16-inch Cylinder Steam-Engine, with Steam Case, complete (length of stroke 4 feet), with Whim Cage, and One Boiler, about 5 tons.

One 11-inch Cylinder Steam-Engine.

Thirty-nine stumps of 19 inch, and Twenty-one fathoms of 18-inch pumps.

Three ditto of 16-inch, and Thirty-seven ditto of 15-inch ditto.

Ten ditto of 14-inch, and Eight ditto of 13-inch ditto.

One 18, One 17, and One 16-inch H. pieces.

Three 19, One 17, Three 16, One 14, One 13, One 12, and Two 10-inch Doorpieces.

Four 17, Two 12, Two 10, One 9, and One 4½-inch Working Barrels.

Two 19, One 18, One 17, One 16, Three 14, One 13, and One 11-inch Windbores.

Two 19, Two 18, One 17, Two 11, and Two 10-inch Plunger Poles, with Cases.

Stuffing Boxes, Glands, and Brass Rings to fit.

Thirty-four Matching Pieces, of different lengths and sizes.

Several Turn, Crooked, and Branch Steam Pipes.

Four Fathoms of a Cast-iron Shaft, 6 feet diameter.

A quantity of Rod-plates, from 5 to 7 inches wide, Flat Rope Pulleys.

Brasses, and other articles calculated for mining purposes.

For viewing the Engines (either of which may be sold with or without the Boilers or Whim Cages), apply to the Agents on the Mine, and for further particulars to Captain Fra. cis Barratt, at the Charlestown United Mines.

December 4.

**TRETOIL—TO BE SOLD BY PRIVATE CONTRACT,** all that compact and very valuable FARM, being a divided moiety of

#### THE ESTATE OF TRETOIL,

situate in the parish of Lanivet, in the county of Cornwall, distant about two miles from Bodmin, now in the occupation of Mrs. Spargo, widow.

This property consists of a Farm-house, and out-houses, garden, orchard, mow, hay, and about thirty-seven acres of arable, meadow, and pasture land, now let at a reduced rent.

The more particular attention, however, of the capitalist is directed to the very valuable mineral discoveries which have been recently made throughout the whole estate, and in which the proprietor is interested to the extent of one quarter, particularly with reference to copper, a considerable quantity of which has already been and is now in course of raising, and which must necessarily afford a very large return to the owner.

The tenant will show the premises, and further particulars may be obtained (if by letter, to be postage paid), by application to Mrs. Susanna Henwood, Rosewynrow, Truro; or to Messrs. Thomas and Hawkins Henwood, of St. Issey.

Dated this 14th day of December, 1838.

\* This advertisement will appear but twice.

**MURKIRK IRON WORKS.—FOR SALE,** those well-known

and recently extended IRON WORKS carried on at Murkirk, in the county of Ayr, with every capability for the production of pig iron and castings, rolled and hammered bar iron, uses and implements, with all the necessary machinery and apparatus, great extent of power both by water and steam, and the whole in good working condition. They are situated on the banks of the river Ayr, and have waterfalls equal to about 100-horse power, which are supplied at all seasons of the year from large reservoirs. The mineral field is rich and extensive, and amply fitted with pumping and winding engines. The lordships are reasonable, and an abundant supply of excellent materials can be raised and delivered at the works by railway or canal at very moderate rates. The accommodation for managers, overseers, clerks, and workmen, is very complete. The farm consists of about 175 imperial acres, the greater part of which is well drained and highly improved land, and there is a large extent of buildings for agricultural and dairy purposes.

For further particulars application may be made to Mr. Matthew Cruickshank, 36, George's-square, or to Messrs. Moncrieff and Paterson, writers, Glasgow; to Messrs. Walker and Melville, W.S., Edinburgh; to Messrs. Crawshaw and Co., London; to Messrs. Samuel Lacon, Liverpool; to Messrs. Cowan and Sloans, Ayr; or to the managers of the works, at Murkirk.

Glasgow, Nov. 22.

**CROYDON TRUNK RAILWAY.**—Parties having business in

this important railway, commanding the trade of the whole country south and south-east of London, now on the eve of completion, may obtain facilities in its transaction by application to THOMAS ALLSOP, Share Broker, 34, Cornhill, who will afford every information as to its progress and prospects. Business in all the railways, most of which being now in progress, furnish data which, by judicious comparison, may serve as a guide to the purchase, sale, or exchange, thus avoiding the loss and ruin attendant upon premature investment, or the not less serious attendant upon premature sale, under the influence of temporary depression.—34, Cornhill.

**BIRMINGHAM AND DERBY JUNCTION RAILWAY.**—

**TENDERS FOR LOANS.**—The directors of the Birmingham and Derby Junction Railway Company are prepared, under the powers of their Act of Parliament, to receive TENDERS for the LOAN of MONEY, in sums of not less than £500 each, on interest at the rate of 5 per cent. per annum, for a term not less than three years. The Tenders are to express the sums, and the term of years for which the same are proposed to be lent.

The Tenders to be addressed to the Secretary, at the Company's offices, Waterloo-street, Birmingham; or to Messrs. Laurence, Cazenove, and Co., Auction Mart, London.

By order, THOMAS KELL, Secretary.

Dated this 14th day of November.

**DEAL PIER COMPANY.—TO CONTRACTORS.**—The

works of directors are ready to receive TENDERS for the performance of the works in and about the CONSTRUCTION and ERECTION of a PIER off the town of Deal, according to the plans, sections, and specifications, which may be seen on application at the office, as under. Tenders must be delivered, sealed up, and addressed to the board of directors of the Deal Pier Company, and endorsed "Tender for Works," on or before Saturday, the 8th of January next.

By order of the directors,

59, Old Broad-street, London; Dec. 6. JOHN BIGG, Clerk.

**GREAT NORTH OF ENGLAND RAILWAY.**—The directors

of this company, in conformity with a resolution of the last Half-Yearly General Meeting of proprietors, hereby give notice that they are ready to RECEIVE TENDERS for LOANS, in sums not less than £500, to be secured by the company's bonds, for any term not exceeding five years nor less than three years. Interest to be paid half-yearly, at the rate of 5 per cent. per annum.

The tenders to be addressed to the secretary of the company, as below, from whom further information may be obtained; or from H. Pattison, Esq., the company's London agent, at his office, 13, George-street, Mansion-house, London.

By order, J. MILLER, Secretary.

Great North of England Railway Office, Darlington, October 19, 1838.

### YORK AND NORTH MIDLAND RAILWAY.

#### CONTRACT FOR WORKS.

The directors of the York and North Midland Railway Company will meet at their office, St. Leonard's place, York, on Thursday, the 20th December, at Eleven o'clock, to receive TENDERS for the following contracts:—

**FAIRBURN CONTRACT.**—To make and maintain the railway, with all the excavations, embankments, tunnels, bridges, culverts, drains, fences, and gates complete, also a viaduct over the River Aire, at Fairbairn, including the laying and ballasting the permanent way (but exclusive of stone blocks, wooden sleepers, rails, chairs, and fastenings), commencing at a point sixteen chains east of the road leading from Ferrybridge to Boroughbridge, and terminating at a point seventy-nine chains west of the centre of the River Aire, being a distance of one mile, fifty-two chains, or thereabouts.

**ALTOFTS CONTRACT.**—To make and maintain the railway, with all its works, in like manner, commencing at a point in the township of Whitwood, and terminating at the junction with the North Midland Railway, in the township of Altofts, being a distance of about two miles.

Drafts of the contract, with plans and specifications of the works, will be ready for inspection at the engineer's office, York, on and after the 29th November, when printed forms of tender may be had, and no other will be attended to.

The tenders must be delivered at the Railway Office, St. Leonard's place, York, on the 20th of December, at or before Ten o'clock in the forenoon, under sealed cover, addressed to the chairman, and endorsed "Tender for Works;" and parties tendering, or parties duly authorised by them, must be in attendance at the time of meeting.

The parties whose tender is accepted will be required to enter into a bond, with two sureties, for the due performance of the contracts, in a penalty of not less than 10 per cent. upon the gross sum contracted for, and the names of the proposed sureties are to be specified in the tender.

The directors will not bind themselves to accept the lowest tender.

GEORGE HUDSON, Chairman and Deputy.

JAMES MEEK, Chairman

By order, GEORGE BAKER, Secretary.

York and North Midland Railway Office, York, Nov. 8.

**LONDON AND CROYDON RAILWAY.**—The Directors

will RECEIVE PROPOSALS from parties desirous of TAKING THE RE-MAINDER OF THE BONDS, authorised by the last Half-yearly General Meeting of proprietors. The bonds to be issued under the provisions of the Company's Acts of Parliament, in sums not less than £500 each, to be repaid on the 10th of July, 1840, and to bear interest at 5 per cent. per annum, payable half-yearly, on the 10th of January and 10th of July.

R. S. YOUNG, Secretary.

1, Bank-buildings, December 5.

### ANTI-DRY ROT COMPANY.—KYAN'S PATENT.

Office, 2, Lime-street-square.

The directors of this company beg to solicit the attention of the public, and more particularly that of architects and engineers, to the importance of having the timber of such works in which they may be engaged effectually preserved from decay by being submitted to Kyan's process.

The directors have the satisfaction of stating, that the following eminent engineers have adopted Kyan's process for the preparation of timbers on the under-mentioned important railway undertakings:—

**Railways.** **Engineers.**

London and Birmingham ..... R. Stephenson, Esq.

Great Western ..... J. K. Brunel, Esq.

North Midland ..... G. Stephenson, Esq.

Manchester, Bolton, and Bury ..... J. Hawkshaw, Esq.

London and Croydon ..... J. Jos. Gibbs, Esq.

Liverpool and Manchester ..... G. Stephenson, Esq.

London and Southampton ..... J. Locke, Esq.

The Ulster, York, & North Midland ..... G. Stephenson, Esq.

Newcastle and North Shields, &c. .... Nicholson, Esq.

Midland Grand Junction ..... W. D. Holmes, Esq.

York and North Midland ..... T. Cahry, Esq.

London and Greenwich ..... Colonel Landmann.

Dublin and Kingstown ..... Charles Vignoles, Esq.

Birmingham and Gloucester ..... Captain Moorsom.

Maryport and Carlisle ..... G. Stephenson, Esq.

Lancaster ..... Alfred Thomas.

Edinburgh and Derby ..... G. Stephenson & Berkenshaw, Esqs.

Ulster ..... Godwin, Esq.

Licenses are granted by the Company for the use of the patent process to architects, engineers, railway companies, timber merchants, and noblemen and private gentlemen for their estates.

**ROYAL CORNWALL POLYTECHNIC SOCIETY.**—The

following sums have already been placed at the disposal of the society, for the purpose of promoting the application of machinery to facilitate the ascent and descent of miners in the deep mines of Cornwall:—

Charles Fox, Esq. .... £100

G. C. Fox, Esq. .... 100

Right Hon. Lady Basset ..... 100

R. W. Fox, Esq. .... 50

J. H. Twiss, Esq. .... 50

Rev. Canon Rogers ..... 50

Davies Gilbert, Esq. .... 50

W. M. Twiss, Esq. .... 10

Rev. E. Rodd, D.D. .... 50

H. English, F.G.S., Editor of the Mining Journal 10

£540

The society is ready to receive proposals from the mines, which should contain a description of the shaft, drawings and specifications of the intended machinery, the period of time required for its completion; an estimate of the expense; and the amount of contribution which will be expected.

The proposals must be sent to the secretaries before the 30th of December next. They will not be opened before the meeting of the committee, if sealed and endorsed accordingly.

Circulars giving further information, and containing engravings of the plan now in operation in the Harz Mines, with some suggestions of improvement on the same, may be obtained of the secretaries or agents.

Since these circulars were printed, another plan has been received from Hanover, which may be seen on application to the secretaries.

By order of the committee,

LOVELL SQUIRE, } Secretaries,

T. E. JORDAN, } Falmouth.

Just published, neatly printed in 8vo., price 4s. 6d.,

**MOXON'S CHEMICAL MINERALOGY;**

containing concise and general descriptions of each mineral substance, upon an entirely new system; together with the Foreign Mineralogical Nomenclature, correctly revised.

London: Published by JAMES WACEY, Old Broad-street.

**THE MINE SURVEYOR'S ASSISTANT; or, DIALLER'S**

**READY-RECKONER:** comprising an elaborate and extensive Traverse Table (computed expressly for the occasion) carried out from one inch to six hundred feet on every quarter of a degree throughout the quadrant. This concise description is quite enough to satisfy all practical men respecting the utility of this Table, and the great labour and time that must have been bestowed in making it. Its principal superiority consists in its admitting of all dialling operations being performed by inspection, consequently the delay and liability to error are unavailably attended on every other means is here completely superseded. The work will include some practical illustrations of the application of the Table, and auxiliary computations, together with a brief practical Treatise on Mine Surveying.

By JOHN BUDGE,

Author of the "Practical Miner's Guide," &c.

P.S.—Subscribers' names and addresses may be transmitted to the office of the Mining Journal, 12, Gough-square, Fleet-street, London; the principal book-sellers in Cornwall; or to the author, at Callington. All letters to be post paid.

\* Not a single copy will be printed more than shall have been actually subscribed for.—Callington, Dec. 6.

**THE AMERICAN JOURNAL OF SCIENCE AND ARTS,**

No. LXVI., for October, 1838, Conducted by PROFESSOR SILLIMAN, price 7s. 6d.—Contents:

Life and Character of Nathaniel Bowditch, LL.D., &c., by the Rev. A. Young.

Remarks upon East Florida in 1838, by Major Henry Whiting.

Geology of St. Croix, by Professor S. Hovey.

Geology of Antigua, by Professor S. Hovey.

Geology and Topography of Western New York, by G. E. Hayes.

On Electro-Magnetism as a Moving Power, by C. G. Page, M.D.

Magnetic Electropet and Electrotoms, by C. G. Page, M.D.

On the Vascular System of Ferns, and notice of a monstrous flower of Orchis spectabilis (with a plate), by Professor J. W. Bailey.

On Fossil Infusoria, by Professor J. W. Bailey.

Notice of Dauburite, a new mineral species, by Professor Shepard.

On Cavities in Quartz, by Dr. Arlie.

Atmospheric Origin of the Aurora, by B. F. Joel, M.D.

Miscellaneous, &c.

London: J. S. HODSON, Publisher and Importer, 112, Fleet-street.

**THE CIVIL ENGINEER AND ARCHITECT'S JOURNAL,**

SCIENTIFIC AND RAILWAY GAZETTE.—The December Number, price 1s. 6d., completes the first volume, and contains the Title, Preface, and Index; besides drawings and descriptions of a machine for cleansing rivers; wood pavement; filtration of Thames water; Cole's patent anti-friction railway carriage, and getting-out of cuttings and embankments; papers on the construction of chimneys; lime and calcareous cement; and Morecambe Bay embankment, by Mr. Hague; reviews of new books; progress of railways and buildings, and several professional communications. Sold by H. Hooper, Pall Mall East; and Groombridge, Paner-alley, Paternoster row.—N.B. The first volume, bound in cloth and lettered in gold, price 17s., is now ready.

### THE BRITISH ASPHALTUM AND PATENT COAL COM-PANY.

—At a Special General Meeting of the shareholders, held yesterday, convened by public advertisement.

H. C. MORETON DYER, Esq., in the chair;

The report of the present state of the company's affairs having been read and approved—

It was resolved, That it is expedient to reduce the number of directors of the company; it was therefore

Resolved, That the present direction be dissolved.

Resolved, That five directors be appointed for the future management of the company's affairs, with power to add two to their number.

Resolved, That John Harman, George F. Parkin, Angelo Solari, H. C. Moreton Dyer, and Stephen Geary, Esqrs., be directors of the company.

Resolved, That 1150 shares, upon which the deposit has not been paid, be cancelled.

Resolved, That cordial thanks are due, and are hereby given, to the Chairman, for the able and impartial manner in which he has conducted the meeting.

By order, THOMAS FLOWER, Secretary.

16, Bishopsgate-street-within, Dec. 13.

### WESTERN MINING ASSOCIATION.

For the investment of capital in the purchase of shares in approved Cornish Mines. (Proposed to be incorporated by Her Majesty's Letters Patent.)

Capital £100,000, in 20,000 shares of £5 each. Deposit £1.

Subsequent calls not to exceed £1 per share in any one year.

This association was established about two years since, by a few individuals, for the purpose of investing capital in the purchase of shares in well-selected Mines in the county of Cornwall, in order to secure average profits with little fluctuation.

Confidential information respecting the property now held by the association, also of the purchases in contemplation, the present profits, and expected dividends, may be had by applicants for shares, at the office of the secretary, Frederick Bank-art, 34, Clement's-lane, Lombard-street, to whom applications for shares (postage paid) are to be addressed.

### THE PATENT SAFETY FUZE,

for BLASTING ROCKS in Mines, Quarries, and for Submarine operations. This article affords the safest, cheapest, and most expeditious mode of effecting this very hazardous operation. From many testimonies to its usefulness with which the Manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F. R. S., &c. &c.

"I am very glad to hear that my recommendations have been of any service to you. They have been given from a thorough conviction of the great usefulness of the Safety Fuze; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

### THE THAMES TUNNEL, entrance near the Church

at Rotherhithe, on the Surrey side of the River, is open to the public daily (except Sunday), from Nine in the morning until dusk. Admission One Shilling each. Both Archaes are brilliantly lighted with Gas, and the descent to the tunnel is by a new and more commodious staircase. The Tunnel is now upwards of 820 feet in length, and completed to within a distance of less than 100 feet of low water mark on the Middlesex shore.

By order, J. CHARLIER, Clerk to the Company.

Thames Tunnel Office, Walbrook-buildings, Walbrook, December.

N.B.—Conveyances to the Thames Tunnel, by an Omnibus, from Charing-cross, Fleet-street, and Gracechurch-street; also by the Woolwich and Greenwich Steam Boats, at Hungerford, Queenhithe, Dyer's Hall Wharf, and London Bridge, every half-hour.—Books descriptive of the works are sold at the Tunnel, price One Shilling.

### LONDON ZINC WORKS AND ROLLING MILLS, Wen-

lock-road, City-road.—Malleable Sheet Zinc, Zinc Nails and Tacks, Planished Plates, of assorted sizes, for Zincography and Door-Plates, and Patent Zinc Slates for Roofing, all of the VERY BEST QUALITY, will be promptly supplied to Dealers and Consumers, on application to

JOHN BALL and Co., 11, Finsbury-circus.

### STANDARD OF ENGLAND LIFE ASSURANCE COMPANY.

8, King William-street, City, and Regent-street, London.

CAPITAL—ONE MILLION.

**DIRECTORS.**

The Right Hon. The EARL OF CAVAN.

Major-General Christopher Hodgson, E.I.C.

W. J. Richardson, Esq.

J. Cuthbert Joyner, Esq.

W. J. Richardson, Esq.

Lawrence Dorgan, Esq.

Henry Lawson, Esq.

William Gunston, Esq.

J. Barrett Lennard, Esq.

George Whitehead, Esq.



## LAW INTELLIGENCE.

## LONDON AND SOUTHAMPTON RAILWAY COMPANY.

VICE-CHANCELLOR'S COURT—DEC. 8.

**ATTORNEY-GENERAL v. THE COMPANY.**—Mr. JACOB moved for an injunction to restrain the company from interfering with the turnpike-road between Reading and Basingstoke, at the point where the line of the railway crosses the road on the side of Totterdown-hill, near Basingstoke, until they should have made another road in its stead as convenient for passengers and carriages as the present road; and that the ascent of the bridge or arch by which the diverted road should be carried over the railway should not exceed one foot in thirty feet, nor should be more steep than the inclination of the present road. This was an information at the relation of the trustees of the road, which complained that the company, in diverting the turnpike-road, were about to make the diverted road pass over a bridge with an ascent of one foot in twenty-eight.

Mr. K. BRUCE and Mr. DUCKWORTH opposed the motion, and insisted that the question ought to have been raised on a *mandamus*. The matter was quite as fit for a court of law as for this court.

His Honour observed, in the course of the argument, on the obscurity so often found in the language of Acts of Parliament, in the penning of which all the common rules of grammar were frequently disregarded; and in giving judgment he said, whatever might be the inaccuracy of the expressions in the clauses which applied to this case, he thought when the Act spoke of "the present inclination of the turnpike-road," it was intended to apply to the inclination as it existed at the passing of the Act. And all he had to do was to determine whether the road, as it existed, would authorise a steepness in the substituted road of one foot in twenty-eight. He was not to judge of the abstract question what was beneficial to the public. But, if he found an Act of Parliament declared that the steepness of a road should have certain limits, he was bound to declare that a road more steep than those limits was not a beneficial road; and, comparing the average steepness of the substituted road with that of the road intended to be forsaken, he did not think the company were acting within the limits of their authority. He should, therefore, grant the injunction.

## MANCHESTER AND BIRMINGHAM RAILWAY COMPANY.

COURT OF CHANCERY—DEC. 10.

**GREENHALGH v. THE COMPANY.**—This was an appeal from an order of the Vice-Chancellor, discharging an injunction granted by him *ex parte*, which restrained the works of the Railway Company. The plaintiff claimed the performance of a contract entered into in February, 1837, for 7000 square yards of his land at Ardwick, near Manchester, and which was required for the then projected line from Manchester to Tamworth, by the South Union Company. There were two concurrent applications to Parliament by different projectors of two lines, the latter of which was called the Chester and Staffordshire line, which were amalgamated in a Committee of the House of Commons. Mr. Greenhalgh, the plaintiff, alleged that he was induced to assent to the Act of Parliament on the faith of the contract mentioned, but the intended line having been varied, a very small portion was required by the new company formed from the two intended projects (the present defendants), and they, therefore, declined to complete the contract.

Mr. WIGRAM and Mr. SUTTON SHARPE, for the plaintiff, contended that the new company was bound to fulfil the contract of the former projectors with Mr. Greenhalgh, and they cited "Stanley v. Chester and Birkenhead Company," not yet reported. Their client would not have assented to the Act of Parliament on any other terms.

The SOLICITOR-GENERAL contended that the present railway was a different undertaking, and that the conduct of the plaintiff amounted to a waiver of his former contract.

The further arguments in this case were concluded on Tuesday, when the LORD CHANCELLOR said he would give his judgment on Thursday.

THURSDAY, DECEMBER 13.

The LORD CHANCELLOR delivered his judgment to-day. The plaintiff had entered into a contract for the sale of a portion of his land to a company intended to be established, called the Manchester South Union Railway, and which, together with another also projected, called the Chester and Staffordshire Railway, was amalgamated into the Manchester and Birmingham Railway Company. Mr. Greenhalgh filed his bill against the present defendants on the ground that they were in substance the same company he had originally dealt with, and which he should have opposed, except on the faith that they would adopt the contracts of the rejected line. The bill prayed a specific performance of the contract entered into by the South Union Company, and also an injunction in the mean time; the Vice-Chancellor dissolved the injunction granted by him *ex parte*, whereupon the plaintiff came to this court. The first question was, whether Mr. Greenhalgh was in a condition to enforce any contract against the present defendants, but his Lordship said he need not enter into that, on account of the opinion he was about to pronounce in refusing the injunction. The facts of the case, as detailed in the voluminous affidavits filed, were of a nature to satisfy him that the plaintiff had so conducted himself as to lead the Manchester and Birmingham Company to suppose he intended to waive his original contract. It was conclusively proved that Mr. Greenhalgh was alive to any equitable rights he might have possessed, but, whatever they were, he would have an opportunity of maintaining them when the cause came to a hearing. He would pronounce no opinion on these rights, because they were too important to be observed upon without any necessity to do so. Upon the whole, however, he was satisfied that there was no ground for continuing the injunction, which, if granted, might lead to far greater injury to the defendants than could possibly accrue to the plaintiff by refusing it. His Lordship added, that this was not strictly an appeal from the Vice-Chancellor, and that the plaintiff had acted wisely in bringing much more evidence before him than had appeared in the other branch of the court. He thought he should best arrive at the justice of the case by refusing the injunction, but without costs.

## PATENT SAFETY FUZE.

VICE-CHANCELLOR'S COURT—DEC. 10.

**BICKFORD v. SKEWES.**—Mr. JACOB, on the part of the defendant in this case, moved the court to dissolve an injunction which had been obtained by the plaintiffs, to restrain the defendant from manufacturing or selling an instrument used by miners in the operation of blasting rocks in mining, called the "Miners' Safety Fuze." The grounds on which the application was made, were stated by the defendant's counsel to be as follows:—That several years ago, the late Mr. William Bickford, of Camborne, in Cornwall, obtained a patent, for an invention of a new instrument or machine for conveying fire to the charge in the operation of blasting rocks in mining, and which he denominated the Miners' Safety Fuze, and the present plaintiffs were the legatees of the late patentee, and under title of the patent, and of Mr. Bickford's will, claimed the exclusive right of making and vending the articles in question, which were very extensively used in mining operations. The defendant, however, insisted that the invention claimed by Mr. Bickford, and for which he had so obtained the patent, was not in fact a new invention, but was previously well known to miners, and that Mr. Bickford had obtained a knowledge of the invention from a person supposed to be an Irishman, whose name was unknown, but who was recollected by several persons to have travelled about Cornwall with safety fuzes for exhibition, which were alleged to be precisely similar to those made by Mr. Bickford, and claimed by him as his own invention; and, under these circumstances, it was insisted by the counsel for the defendant, that Mr. Bickford, the patentee, was not the first inventor of the fuzes in question, and that the patent was therefore void, and the injunction ought to be dissolved.

Mr. BETHELL followed on the same side. The VICE-CHANCELLOR, without calling on the counsel for the plaintiffs, stated, that upon the facts before him, it appeared that there had been an exclusive enjoyment under the patent for several years before the defendant commenced the infringement in question. That an injunction was immediately obtained by the plaintiffs to restrain that infringement, which not even an attempt had been made on the part of the defendant to disturb until February, 1838, when he gave notice of his present application to dissolve it, and from that period he had suffered his application to linger on with a meagre existence down to the present time. Under these circumstances, it appeared to him that there were no grounds for interfering with the injunction, and he should therefore refuse to dissolve it—the plaintiffs undertaking to bring an action for the infringement, according to the usual course of the court.

## RESPONSIBILITY OF SHAREHOLDERS.

COURT OF QUEEN'S BENCH—DEC. 10.

**THE BIRMINGHAM, BRISTOL, AND THAMES GRAND JUNCTION RAILWAY v. LOCKE.**—The Attorney-General and Mr. Shee appeared for the plaintiffs, and Sir W. Follett, Mr. Hoggins, and Mr. Locke, for the defendant. This was an action to recover a sum of 213*l.* for calls made by the Railway Company, and not duly paid up by the defendant. The defence was, that the defendant had not duly become a member of the company, and that if he ever had been a member, his shares had been forfeited, and had been so declared by the directors in the manner directed by the private Act of Parliament under which the company had been established. The evidence on the part of the plaintiffs to prove that the defendant was a member of the company, was the common evidence given in such cases. In cross-examination the witnesses admitted that the defendant was not an original subscriber to the Parliamentary contract, and a considerable time was employed in ascertaining whether the shares, in respect of which he was now attempted to be fixed with liability in the present action, had not been held by other subscribers. It was proved for the plaintiffs that the defendant had come

with these scrip shares, and had claimed to be registered in the books of the company in respect of them, and that he had been so registered, and had claimed to vote as a member of the company. But then, on the other hand, it was shown that there had been some proceedings with a view to forfeit his shares for not having complied with the regulations of the company relating to the payment of the calls, and that he had been refused permission to vote on that account. On the questions on these matters being submitted to his lordship,

Mr. Justice COLERIDGE said, that he thought enough appeared to show that the plaintiff had become a member of the company, so far as to be liable to the company for payment of these calls. On the other hand, the terms of the secretary's letter requiring payment, and declaring that a certain default would render his scrip shares forfeited, did not actually forfeit them, but merely announced what would be the consequence of a longer neglect. He did not, therefore, think that the shares had been forfeited, and he should direct a verdict for the plaintiffs, but would give the defendant leave to move the Court for a new trial, should his direction be deemed erroneous.

Verdict for the plaintiffs—Damages 213*l.*

## WEST CORK MINING COMPANY.

COURT OF EXCHEQUER—DEC. 12.

**HAMMON v. TIMINS.**—Mr. Erie and Mr. Butt appeared for the plaintiff, and Mr. Kelly, with Mr. Henderson, for the defendant.

This was an action brought against the defendant, as nominal defendant under the act of Parliament incorporating the West Cork Mining Company, to recover from the company the sum of 154*l.*, being the amount of salary due to the plaintiff as one of their clerks. The case for the plaintiff depended in a great measure upon the evidence of his engagement, which was to be gathered from the resolutions and minutes of the company's transactions, which, of course, were only to be furnished by the production of their books. These, however, being now in Ireland, whither they had been sent in pursuance of a notice to that effect, to await the hearing of a cause in the Court of Chancery there, and the notice to produce them in this cause having only been given on the 8th of this month, his lordship refused to allow the plaintiff to give secondary evidence of their contents. Another branch again of the case depended upon the reception of a book which was in the possession of the plaintiff, and which purported to contain an entry of the secretary, to the effect that the plaintiff had written a letter requesting remuneration for his extra labour, whereupon a resolution was passed that he should be paid fifty guineas for those past services, and that his future salary should be increased from 80*l.* to 120*l.* per annum.

This Mr. KELLY, however, objected to, as being in fact an agreement for more than 20*l.*, and therefore within the scope of the stamp act, and the objection being held to be good, the evidence was excluded.

Mr. ERIE then went into evidence to prove the plaintiff's claim under the count upon an account stated, and having succeeded in that, a verdict was ultimately given in his favour for 13*l.* 6*s.*, being the amount which the company's accountant had reported to them as being due to him after an inspection by him of the whole accounts in accordance with a resolution to that effect by the directors.

After the verdict had been given, A JUROR requested to be informed by his lordship whether from what had passed the public were to understand that no servant of a company could recover his salary against them unless the book containing the resolutions affecting them was stamped.

LORD ABINGER.—Yes, sir, such is the law, if the books are produced as evidence of an agreement for a sum beyond 20*l.* as hire, and it only shows how careful all people ought to be in dealing with these companies. They insert in their own books the evidence of their bargains, and when they are produced against them, they instruct their counsel to object to them for want of a stamp.

## SPECULATIONS IN SPANISH BONDS.

INSOLVENT DEBTORS' COURT—DEC. 12.

James Jennery, a stock-jobber, was opposed by Mr. WOODROFFE, on the part of Mr. May, a warehouseman in Cateaton-street, and Mr. Aaron, pawnbroker, residing at Whitechapel. He was supported by Mr. COOKE.

In this case the insolvency was ascribed to speculations in Spanish Bonds. His debts in the aggregate were 3600*l.*; of which sum he had, he alleged, received no consideration for 2335*l.*, arising on "time bargains." The *bond fide* debts were 1324*l.* On the other side appeared the sum of 980*l.*, and a quantity of furniture had been given up to the court.

Mr. PHILIP MAY, the opposing creditor, stated that he had known the insolvent since they were schoolboys. The insolvent had been a clerk to Messrs. Ladbroke, the bankers. He had represented himself as possessed of sufficient property to live independent. He retired from the bank, and he (Mr. May) had every reason to believe that his statement was correct. The insolvent had spoken of speculations in the foreign funds, and asked him to join him. He declined to have anything to do with such speculations, as he always knew them to result in ruin. In June, 1837, the insolvent called on him. He said he was repairing his houses, and wanted about 100*l.*, and asked him (Mr. May) to discount an acceptance for that amount. He objected to discount his acceptance, but after much persuasion he consented, taking at the rate of 10 per cent., the usual sum received in his business. He afterwards discounted other bills, the insolvent always representing that he had property. He had discounted bills to about 1090*l.*, and his debt now amounted to 295*l.* The discount on the whole was 28*l.* 7*s.* 6*d.* Mr. May said, if he had known his money had gone in Spanish Bonds, he would not have discounted the bills. The insolvent was always speaking of his rents, and also mentioned the deeds of some houses which were in the hands of Messrs. Ladbroke.

Mr. GEORGE MAIR, a builder, residing in Bethnal-green-road, said the insolvent on the 2d of July last called on him, at nine o'clock at night. He resided near his house. He asked him if he would discount his bill for 50*l.* (Mr. Mair) told him he would let him know in the morning; and as early as seven o'clock he sent him a note, stating he could not, but he would get his brother-in-law, Mr. Aaron, to oblige him. He believed the insolvent was a respectable man, and he got the money.

Mr. AARON stated that he discounted the bill. The insolvent told him at the time that he had several houses, and as he should receive his rents when the bill became due, it would be taken up. Mr. Aaron said, if he had known the insolvent was involved in debt and speculations in Spanish Bonds, he should not have discounted his acceptance.

The insolvent, on his examination by Mr. WOODROFFE, said he was clerk in Messrs. Ladbroke's bank, and his father, until his death, was his security. He left his situation in 1834, when he was possessed of between 3000*l.* and 4000*l.*; he acquired that sum partly by speculations, perhaps 1000*l.* The house, he believed, were not aware that he speculated in the funds. The other part he had saved out of his salary of 190*l.*, which he was enabled to do, as he lived with his father. He was about nineteen years in Messrs. Ladbroke's bank. His father was a man of property, and had assigned to him four leasehold houses. He died in October, 1836, leaving his property to his wife (the insolvent's mother). The property was sworn under 10,000*l.* In 1834, he (the insolvent) was married, when he was possessed of upwards of 3000*l.* In the following year his losses on Spanish Bonds were very great. They were so large that he never recovered himself. In that year speculation in Spanish Bonds was quite a mania. They rose considerably, and kept up until May, 1835. In that month a tremendous fall took place; it was very rapid and sudden. There was, however, a good deal of speculation, and he did not sell out. The Bonds continued falling, and never rose again. His total losses on Spanish Bonds were about 5000*l.*; he had lost all his property, and was now considerably in debt. He continued a jobber in the funds within a short time of his arrest.

The insolvent's mother was examined, and the production of her husband's will was ordered.

Mr. WOODROFFE contended that the debts of the two opposing creditors had been incurred improperly, and without the means of payment. The case of Mr. Aaron was, that the insolvent, at near the close of his career, obtained 50*l.* when he had no possible means of payment.

Mr. COOKE addressed the court on the part of the insolvent, urging the various losses he had sustained by gambling in the funds. He had continued hoping against hope, and like a gambler, had staked his last, and now was in prison, having lost his own property and got considerably into debt. He contended that Mr. May had taken 10 per cent. interest to guard against losses, and was therefore not a person entitled to the protection of this court.

The probate of the will of the insolvent's father was read. The property was settled on his (the insolvent's) mother.

The learned CHIEF COMMISSIONER adjudged the insolvent, from the date of filing his petition, to an imprisonment (within the walls) of seven calendar months, for incurring the debts with Mr. May and Mr. Aaron, without reasonable or probable means of paying them.

**MELANCHOLY ACCIDENT.**—On Thursday a melancholy and fatal accident happened at one of Mr. Snodgrass's coal-pits at Auchinlodmont, Johnstone. A young man named Wauchop, belonging to Elderslie, had come to the pit for a cart of coals for his master; and at the time a brace of coal was being removed from the pit-mouth, and just as the engine was about to lift an empty creel about to be lowered, Wauchop most incautiously attempted to pass between it and the pit-mouth, when the rising creel struck him, and threw him into the shaft; he held by the creel for a moment, but a bound of it against the side of the shaft threw him off, and he fell to the bottom a lifeless corpse.—*Glasgow Chronicle.*

## GOVERNMENT CONTROL OF RAILWAYS.

The following notice of the Government administration of railways, in the United States, France, and England, is extracted from the "Second Report of the Irish Railway Commissioners:—

In all other countries the duration of the rights and powers granted to railway companies is limited to a certain period, or they are subject to superintendence and control, and in some cases both restrictions are imposed. It is clear that a country reserving a control over the railways, and, above all, stipulating that they shall become public property at a given period, after which the charge made for conveyance will only be that required to cover the current expenses, will have a great commercial advantage over countries where the means of transit will be for ever burdened with heavy imposts for the benefit of the respective proprietors. In the United States, where railways have been constructed to a far greater extent than in any other country, the powers given to companies (by whom they are almost entirely executed) appear to be very large, and the restrictions very small. The railways are, however, chiefly undertaken by the landed proprietors, farmers, and other persons locally interested along the line. The projects are first laid before popular meetings in the districts through which the line is to pass, where they are thoroughly discussed. The sanction of public opinion having been received, an act of incorporation is next obtained, and with little trouble or expense, even before the surveys are made. This enables the directors to carry the railway in any direction they please, on compensating the proprietors of land or premises interfered with. For these only a fair and reasonable amount is allowed, and much of the land is often given gratis to facilitate the undertaking. In case of disagreement with respect to compensation, the courts appoint three arbitrators to determine the amount, subject to an appeal to the ordinary Jury Court. The companies are bound to provide fences, gates, &c.; not to encroach unnecessarily on public convenience in crossing roads, navigations, &c.; and to complete the line within a given time; but they are unrestricted in their rates of charge and as to the accommodation they are to furnish to the public or the state. The property of the company in the railway is, however, generally limited, such as for 100 years or even only fifty, after which it devolves to the state, which also, in most cases, reserves to itself the right of purchasing the railway. Another safeguard is the usual practice of the state taking a large proportion of the shares, and thereby obtaining a corresponding influence in the management of the undertaking. Still, it may be expected that these extensive powers will be attended with much inconvenience to the public, and it is said that this was soon experienced in the United States concerning the conveyance of the mails, the Post-office having been obliged to send the guard as a passenger, and to pay for the bags as luggage.

In France, great foresight and precaution have been exercised for the protection of the public interests. The project of a railroad is first drawn up by the Government engineers and then *employés*. The opinions of parties locally or otherwise interested is then courted and elicited; and the little opposition which has been made to the lines proposed is a proof of their having been judiciously selected. They are next divided into portions (comprehending each the line from one chief point to another), some of which are from 100 to 200 miles in length. An act is then proposed in the Legislative Chambers, describing the line determined on, and specifying the terms and conditions to which parties undertaking it will be subject, and the powers and advantages that will be given them. When the measure has been sanctioned by the Chambers, it is open to the biddings of capitalists, and the preference is given to those who, being duly qualified, offer the most favourable terms. Besides being put to no expense for the original surveys, valuations, &c., and for the act of incorporation, those who undertake the railways are invested with all the powers and advantages given for the encouragement of public works, to facilitate the procuring of materials and other necessities, and for the regulation of labour, and they have the assistance of Government officers connected with public works, as well as the offer of a contribution, amounting in some cases to a quarter of the estimate, towards the completion of the undertaking. Among the conditions usually imposed on the companies are the following:—A limited period of possession (generally ninety-nine years—sometimes only fifty) after which, the railroad and its appurtenances to be given up, in good order, to the state, the engines, &c., being paid for at a valuation; a reserved right to the state of purchasing the railway, after a certain number of years' possession; the tolls to be fixed at moderate rates; the nature of the works to be defined, and the drainage, fences, mode of crossing roads, and navigations, limits of curves and gradients, number of lines of rails, size of rails, &c., to be all subject to examination and approval. One-tenth of the amount received for passenger traffic, exclusive of the charges for tolls or profit on capital, to be paid to the Government. The mails and dispatches, with their guards, to be conveyed free of charge. The military, when on duty, to be carried at half price. Every facility to be given in cases of necessity to the transport of troops or military stores. The police, the preservation of the railway and safety of its working, and the general regulations, to be subject to the control of the public authorities. In some cases the profits are limited to 10 per cent. On such terms many offers have been made to undertake railways of considerable extent, and even without asking for any of the Government contribution where the lines promised peculiar advantages.

In England, on the contrary, the other extreme is acted upon. In almost every case a railway project originates with an engineer, solicitor, or other interested person, by whom it is laid before the capitalists, who form the company, and collect money for making surveys and preparing a bill. The survey being completed, the scheme is made public by prospectuses and advertisements, and the share list is filled up chiefly by share dealers and temporary speculators. The bill is then presented to Parliament, and if it be opposed by a rival company or other parties, then commences the rich harvest for the counsel, solicitors, engineers, and witnesses. Every abstract professional matter—the principles of curves, gradients, friction, gravity, &c., is lengthily discussed, though in many cases the counsel, the witness, and the court, are all equally ignorant of the subject; and as the best and worst devised schemes are entertained alike, and are equally exposed to the opposition of interested parties (the fate of the scheme merely proving the number and influence of its supporters or opponents, and being no test whatever of its merits), a project, though possibly of great value, may, after an expenditure of tens of thousands of pounds, be rejected for some trivial cause, such, perhaps, as a notice being left at No 23 instead of No. 24 in a street, and may even be defeated for two or three sessions of Parliament, having the whole to recommence each time. When it has battled its way at an enormous expense through Parliament, the company has still to contend with the exactions of proprietors for compensation; after this it has its own way, and makes reprisals on the public for all these expenses and delays, which the few and nugatory restrictions imposed on its proceedings leave it at full liberty to do with impunity. Although the remedies for these evils involve principles repugnant to received opinions in this country, they are of so much public importance that they must be resolutely grappled with. Besides as many safeguards as can be introduced into the acts of incorporation, something of the nature of a board of control should be established to superintend and regulate the proceedings of railway companies, the acts of such board being also subjected to such restriction, superior sanction, and publicity as may prevent their exceeding a proper discretion.

## RIOTS BY RAILWAY LABOURERS.

In consequence of the serious disturbances that have occasionally taken place among the labourers employed on the different lines of railway, and the doubt that appears to exist as to the powers possessed by the magistrates to establish a police for the protection of the peace, application has recently been made to the Secretary of State upon the subject; and within the last few days the following circular has been addressed to the clerks of the peace of the counties of Essex, Herts, and Surrey, in which three great lines of railway are at present in course of erection:—

"Sir,—Lord John Russell having had his attention drawn to occasional instances of serious riots which have occurred on some of the lines of railway at present in execution throughout the country, and which have spread alarm in the different localities where they have occurred, has directed me to request you to bring under the notice of the magistrates acting for districts in the county of \_\_\_\_\_, in which such works are carried on, the act of last session, chap. 80, entitled 'An Act for the Payment of Constables for keeping the Peace near Public Works.'"

"A copy of this act will be sent to any magistrate who may have occasion to refer to it, on his applying for it."

By the act referred to, magistrates are empowered to swear in any number of special constables they may think necessary, and affix the amount of their pay, which is to be provided by the railway company upon whose line they are to be employed, if the company do not themselves appoint a number that is considered by the magistrates sufficient for the preservation of the public peace. Within the last few days the directors of the Eastern Counties and the London and Brighton Railway, who have been communicated with on the subject by the bench of magistrates in their respective localities, have established a permanent police, in accordance with the wishes of the magistrates, for the protection of the peace. It is to be hoped that this will have the effect of preventing any such serious breaches of the peace from again taking place.



## PROCEEDINGS OF PUBLIC COMPANIES.

## BRITISH ASPHALTUM AND PATENT COAL COMPANY.

A special general meeting of the shareholders of this company, convened by requisition, was held at the offices, Bishopsgate-street, on Wednesday, the 12th inst.

H. C. MORETON DYER, Esq., in the chair.

The requisition calling the meeting, in accordance with the deed of settlement, to adopt such measures as they might deem expedient to carry out the objects of the company, signed by shareholders holding 1000 shares, was first read.

The report of the directors, on the state of the company, was read.

The statement of accounts was then submitted, showing a balance at the banker's of 1189*l.* 14*s.* 10*d.*; also a balance at the London and Westminster Bank, bearing interest at 2½ per cent., of 4300*l.*; securities at Messrs. Williams, Deacon, and Co., 900*l.*; available assets, 1623*l.*; 1150 cancelled shares, 1150*l.* The disbursements from the commencement of the company amounted to 837*l.* 5*s.* 2*d.*; making in all the amount of the capital of the company 10,000*l.*

A report, drawn up by Mr. Hartley, was then read, in which calculations were made of the expected produce, the cost of making the coal, and the profits anticipated. The cost of production depended greatly upon the locality of the works—it averaged from 11*s.* 3*d.* to 21*s.* 6*d.* per ton—they might certainly calculate upon a net profit of 25 per cent.

Mr. JOHN HARMAN wished to express the motives that induced him to affix his name to the requisition calling the meeting; he considered that the prospects which this company offered were highly flattering, and that the hopes they had entertained, were fully borne out; he regretted the delay that had arisen, but he felt sure that the time was not far distant, when both the proprietors and the public would experience the benefits to be derived from this company; but he had to call the attention of the meeting to a most important point, which was the want of union among the directors; he had been absent from town for a short time, and on his return, he was astonished to find that the deed of settlement had been removed, and that orders had been transmitted to the bankers to discontinue drafts, &c. He had thought it his duty to bring this before the meeting, that the evil might be remedied.

Mr. GASTRIEL WILKINS then submitted a series of resolutions, which will be found in our advertising columns, and which he thought would meet the views of the shareholders, and likewise be satisfactory to the directors; he considered that the management of the company should be put upon a different footing. The resolutions having been read, Mr. W. continued,—"There appeared to be no want of funds, and the gentlemen named as directors, would give heart and hand to forward the interests of the company—they held about three-fourths of the whole concern."

The CHAIRMAN, in explanation of what had been said by Mr. Harman, stated, that the order for the removal of the deed had been given by gentlemen who were no longer in the direction. It appeared that it was removed by one of the trustees, to be out of the reach of the directors; and the directors had thereupon given directions, that any cheque drawn by the trustees should be dishonoured. The resolutions were here put *seriatim*, and carried unanimously.

Mr. PARKIN wished to inform the meeting previous to its adjournment, that the works belonging to this company at Bow were intended merely as experimental; the directors wished to commence in this manner, that they might be able to see the precise working of the experiment; they considered, that by March next, they should be able to decide when they should erect a substantial building and works, capable of producing from 1000 to 2000 tons per week. He thought that no further call would be required, and congratulated the shareholders upon the very flattering prospects the company held out.

An especial vote of thanks was then passed to the chairman, for the very able and zealous manner in which he had forwarded the interests of the company.

The CHAIRMAN having briefly returned thanks to the meeting, for the honour done him, at the same time assured the shareholders, that no exertion on the part of the directors would be wanting to promote the welfare of the company, and congratulated them upon the success which had attended the undertaking,—the meeting adjourned.

## ANTI DRY-ROT COMPANY.

On Friday, the 7th inst., a special meeting of the proprietors and shareholders in this company took place at the London Tavern, for the purpose of determining on and adopting such steps as might be deemed advisable in consequence of the conduct of the late managing director, Mr. Terry, who, it was stated, had reissued a large number of certificates of shares which in the due performance of the transactions of the company ought to have been cancelled. The meeting was very numerously attended.

W. R. VIGERS, Esq., in the chair.

The CHAIRMAN stated that the discovery had by accident been made by himself in looking over the books, wherein he had observed, whilst examining them for another purpose, some strange irregularities. An inquiry was subsequently set on foot, which led to the absence of Mr. Terry. Since that person had gone away the directors had commenced a minute examination of the various books and documents, in the course of which it had been found that there had been such a system of interchange in the numbers and reissuing of the certificates of shares as to have excited the greatest astonishment. As yet the inquiry had not been brought to a conclusion, and therefore the directors were unable to put the shareholders in possession of the facts. As soon as the investigation had terminated, it was their intention to call another meeting, when the whole matter would be laid before them. That would probably be in a fortnight.

A very protracted and warm discussion ensued, during which the directors were accused of negligence in not having kept a stricter eye upon the progress of the transactions of the company, and for not having arrested Terry on a particular day, when it was alleged that object could have been accomplished by them. They were also accused, in some instances, with not having complied with the provisions of the act of Parliament. Eventually, however, on the motion of Mr. Erskine Perry, a committee, consisting of Mr. T. Collett, Mr. Shadbolt, and Mr. Morris, of the Temple, were appointed to enter into the necessary investigation, with the directors, with instructions to make a report to the next meeting, distinct and separate from that drawn up by the directors themselves: the committee to have access to all books, papers, and documents.

## MANCHESTER AND BIRMINGHAM RAILWAY.

A deputation of the directors of this railway, consisting of H. Tootal and J. P. Westhead, Esqs., accompanied by G. W. Buck, Esq., the engineer, met the committee appointed by the town council of Macclesfield, on Wednesday week, in order to communicate to them the plan for a diversion of the proposed branch to Macclesfield, the effect of which would be that the Macclesfield branch would join the main line, near Cheadle Hulme, instead of Stockport, and would again fall into the line adopted by Parliament near Hollingworth Smithy.

The MAYOR in the chair.

A report from Mr. Buck was read to the meeting, recommending that the Macclesfield line should branch off at Cheadle Hulme, by which a deep cutting and curve, together with the inclined plane on entering the main line, would be avoided. The distance from Macclesfield to Stockport, by the proposed line, would be only fourteen chains longer than by the Parliamentary line. Mr. Buck concluded his report by stating that the proposed line would be cheaper to execute, cheaper to work, and what was of still higher importance, it would be safe; whereas, the Parliamentary line would be decidedly otherwise, owing to the danger to be apprehended from approaching trains, which the curve would render invisible to each other; while, from the momentum of an inclined plane of thirty-five feet to a mile, it would be impossible to stop at least one of the trains in order to prevent a collision.

In answer to a question by Mr. Brooklehurst, Mr. WESTHEAD said, the directors were willing to give the strongest guarantees of their intentions to make the branch. They had never had any other views. It was their object to make the branch to Macclesfield as soon as circumstances would permit; and whatever delay might arise from the necessity of applying afresh to Parliament, he was convinced that the altered branch might be done in less time than the Parliamentary branch would have taken. Their object would, however, be greatly facilitated if gentlemen belonging to Macclesfield would assist them in getting the assents of the landowners on the proposed line, by which means, he thought, the bill might be introduced into Parliament next session.

It was then agreed, after much conversation upon the subject, that several gentlemen of the committee should be appointed to co-operate with the directors in obtaining the assents of the landowners, Mr. Brodick, on behalf of the Macclesfield committee, assuring the deputation that they had no objection to the deviation proposed; they had a certain Parliamentary pledge on the statute book, and till that was removed they were satisfied.

A vote of thanks having been passed to the chairman, the meeting separated.—*Abridged from the Macclesfield Courier.*

## PENRITH AND CARLISLE RAILWAY.

A numerous and influential meeting was held at Carlisle, on Wednesday, the 28th ult., in support of this undertaking. A deputation from Penrith was in attendance.

The MAYOR of Carlisle in the chair.

The CHAIRMAN stated the object of the meeting, which was to consider the propriety of supporting the Penrith and Carlisle Railway, whether as an independent line, or as a link connecting the metropolis with Scotland.

The HIGH-SHERIFF of Carlisle, in moving the first resolution, as to the desirableness of the proposed undertaking, considered the advantages which it would confer on Penrith and Carlisle as very great, independently of the cheap and rapid communication which it would shortly open from London and the manufacturing districts of Lancashire. Looking at it as an investment for capital, he was convinced that it would be found a safe and profitable source of income.

Sir GEORGE MUSGRAVE seconded the resolution, which was carried unanimously.

Major WILDE moved the next resolution—"That the formation of the Penrith and Carlisle Railway would be a decided step towards forwarding the great line through Lancashire into Scotland, it being in a direct line of communication from Lancaster to Carlisle, and therefore will be deserving the support of all connected with those important districts."

Mr. HASWELL, in seconding the resolution, considered the projected undertaking in two points of view—first, as an independent line between Penrith and Carlisle; and secondly, as a link in the grand line of transit from the metropolis to Scotland. The vast quantities of coal, wood, slate, and stone, in the district through which the railway would pass, and which were now locked up would, by this cheap mode of conveyance, find a ready mart; and, if this proved beneficial to Penrith, it would be equally so to Carlisle. That city would be able to send, in return for the minerals of Cumberland and Westmoreland, its own commodities; and if he could mention any one article more than another, an increased and cheaper supply of which would be gladly received by the inhabitants of Carlisle and the surrounding district, it was coals. Mr. Locke, the eminent engineer, had made a most favourable report of the traffic that might reasonably be anticipated upon the line, the expense of constructing which would be from 8000*l.* to 10,000*l.* per mile; and the committees appointed to estimate the probable income and expenditure had, on a moderate calculation (which some considered greatly underrated), given a return for the required capital (170,000*l.*) of 8 per cent. Mr. Haswell next alluded to the Morecambe Bay line, the formation of which he considered highly improbable; and, if the coast line failed, from an irruption of the sea, which might break in upon and dash it to pieces, or if the natural difficulties should prove in the end so great that they could not be overcome, how was the communication between Carlisle and the metropolis to be carried out but by Lancaster and the London and Birmingham Railway? Without wishing to disparage his good friends in Lancashire, he might be permitted to say that the Morecambe Bay scheme would prove an utter failure; and, entertaining that opinion, he had a right to set before the public a line which would be attended in its execution with no such risks, and which, whether considered locally, or with reference to the communication between England and Scotland, and as bringing them within a few hours' reach of London and the important county of Stafford, was well entitled to their support.

The resolution having been adopted, Mr. HOWARD, one of the Penrith deputation, afterwards addressed the meeting, and took occasion to point out how deeply the interests of the inhabitants of Carlisle were involved in the proposed undertaking, which, if carried out with spirit, would secure to them important advantages.

The SECRETARY stated that the share list already amounted to 40,000*l.*, in addition to which sum, Mr. Howard, the city member, desired his name to be put down for ten shares (500*l.*)

A vote of thanks was afterwards passed to the chairman, and the meeting separated.

## STAFFORDSHIRE HEMP AND FLAX COMPANY.

A meeting of the directors of this company was held at Rugeley, on Tuesday last. Major CHETWYND, M.P., in the chair.

The first business introduced was the examination of the tenders which had been delivered in for the erection of a laboratory for the chemical department of this new manufacture. Several estimates had been sent in, which were carefully compared; but those delivered by the Coalbrook Dale Company, and Mr. Charles Heywood, were finally adopted; and those gentlemen have undertaken to complete the work by the 1st of April next. Another important resolution was entered on the books, which we are sure will give increased confidence to the shareholders, and insure the speedy completion of the works and other preliminary arrangements—namely, the appointment of Jeremiah Barrett, Esq., one of the trustees, and an active practical man of business, to the office of managing director; and that gentleman will consequently forthwith take up his residence at Rugeley, to superintend the works, and to prepare the machinery, &c., for actual operation.

We are also glad to hear that something was said respecting the establishment of a branch factory in Stafford, a suggestion which we trust our townsmen will see the advantage of assisting, heart and hand, to carry into effect, by their co-operation and encouragement, as the employment of five or six hundred people (chiefly women and children), which this branch, on a small scale, would probably occupy, would be most beneficial to the interests of the town. We are informed that several gentlemen in the neighbourhood intend to take shares.—*Staffordshire Advertiser.*

## SHIP CANAL AND RAILWAY MEETING AT LEWES.

A public meeting was held on Friday week, at the County Hall, Lewes, to take into consideration "the propriety of supporting an application to Parliament for authority to make a Ship Canal from Newhaven to Lewes, and a Railway from the London and Brighton Railway, at St. John's Common, through Lewes to Hastings."

THOMAS WHITFIELD, Esq., Senior Constable, in the chair.

Mr. BRIGGS addressed the meeting at considerable length on the local advantages likely to arise from the completion of the proposed undertaking. In the course of his observations, he said, "I have the authority of Mr. Rastick, who has gone into the matter very minutely, for telling you that the railway may be constructed at a cost of somewhat less than 15,000*l.* a mile. I also have his authority to state, that the canal, as projected on the proposed plan, may be executed for 140,000*l.*" Mr. Briggs was of opinion that, after allowing the usual and very large sums necessary for the maintenance of the railway and canal, the balance available for the purposes of a dividend to the proprietors would be 82,000*l.*, or nearly 13 per cent. upon the expenditure.

Mr. B. GODLEE, in a speech of some length, which we do not think it necessary to report, as it consisted wholly of general remarks and long-established truisms touching the advantages resulting to society from a well-regulated system of commerce, proposed the following resolution:—"That a ship canal from Newhaven to Lewes, in connexion with a line of railway from the London and Brighton Railway, through Lewes to Hastings, according to the plans of Mr. Rastick submitted to this meeting, will be of great public advantage and highly conducive to the interest and prosperity of the town of Lewes; and that it is incumbent on every one whose welfare is identified with the prosperity of Lewes and its neighbourhood, to unite in such measures as may be necessary to promote the formation of such canal and railway."

Mr. E. MONCK seconded the motion, because, he said, he was satisfied the greatest benefits would result from the adoption of the plan proposed, which was then put and carried unanimously.

Mr. H. BROWN proposed "That a committee of Messrs. E. Beard, J. Berry, T. Berry, H. Brown, T. Chatfield, J. Farnes, B. Godlee, G. Grantham, T. Johnston, J. Langford, G. Molineux, E. Monk, A. Morris, E. Morris, P. Verrall, W. Verrall, J. Watts, A. Wood, and G. Wood, with power to add to their number, be appointed to assist in making the

necessary arrangements for the formation of a company for carrying the proposed measures into execution; and that such committee be authorised to obtain subscriptions for the purpose of defraying necessary expenses," which was seconded by Mr. Morris, and agreed to unanimously, when the meeting broke up, after voting thanks to the constables.

## LONDON AND BIRMINGHAM RAILWAY—WOLVERTON STATION.

In Roscoe's "Description of the London and Birmingham Railway," (Part IV., just published), we find the following account of the Wolverton Station, one of the most important points on the line, nearly midway between London and Birmingham:—

"The magnitude of the works at Wolverton is the wonder and admiration of all who travel along the railway, and it will readily be perceived that the utility of having a great central station, on such a long line of road, was one of the first considerations; and it fortunately happens that the site is locally convenient as regards communication laterally by roads, and also by canal. It was, therefore, determined, that at this place a large manufactory should be erected, for the purpose of repairing engines and other machinery connected with the traffic; and also, that a depot for the reception of goods and cattle should be provided; whilst accommodation was secured by the erection of dwellings for the artificers; it being contemplated that, when at full work, nearly one thousand persons are employed at this station alone. The large building seen to the left of the railway, before arriving at the canal, is the Wolverton Locomotive Engine Station, which will be devoted wholly to the repairs, &c., of the engines and machinery: as the locomotives do not run through the whole length of the line, but change at this station, it is requisite that there should always be a stock in readiness to meet any demand. It was erected from the designs, and under the superintendence, of Mr. G. Aitchison, architect, of London, a gentleman who has for some time past devoted his attention to works of this description, and who has the appointment of architect to the stations upon this line. The building is of a quadrangular form, each side being 314 feet long; it is built of brick, with stone cornice and blockings, the style of architecture being Doric. But here there appears no extraneous ornament, all being in character with the objects for which it is designed; yet the extent of the building is so great, that it has a very imposing appearance. The entrance from the railway is by an arch of a semicircular form, which leads to a large open area, entirely surrounded with buildings. On either side of the entrance are the erecting shops for engines; and around the court-yard are the engine and tender sheds, the joiners' shop, iron foundry, boiler yard, hooping furnaces, iron warehouse, smithy, turning shops, offices, stores, a steam-engine for giving motion to the machinery, and for pumping water into a large tank over the entrance gateway, to supply the locomotive engines; in short, every convenience that a large manufactory of this nature can require is provided. Between the building and the canal, a space of about two acres, is set apart for a wharf, and storeyard for timber, trucks, &c.; and on the eastern side of the railway, opposite the engine station, is a space of several acres, appropriated to the reception of goods and cattle; it is bounded on the north and east by the Grand Junction Canal (which here bends round towards the southward), and on the south by an occupation road, the railway running on the western side. A lay-by has been already formed on the canal, and a large shed erected adjoining, for the purpose of receiving goods from the canal to be forwarded by railway; this has been in operation since the entire opening of the line, and trains of goods now run regularly from hence to London. Waiting and refreshment rooms are erected close to the station, for the accommodation of passengers, as this is the only place between London and Birmingham at which time is allowed to take refreshment. It is contemplated that on the station, and the works connected with it, a sum of 100,000*l.* has been expended."

SOCIETY OF ARTS.—On Tuesday evening the first illustrated lecture for the present season was delivered by Mr. Goddard, of the Polytechnic Institution, on the polarisation of light. The lecturer stated the principles of the two theories of light—the Newtonian, in which it was supposed to consist of corpuscular atoms pervading the universe, and the present, or undulating theory, which, in fact, was a revival of the opinions held previous to the promulgation of the Newtonian theory. The universe was filled with an ethereal medium, and may be said to be governed by the same laws as the waves of the sea, or the vibrations of sound. Mr. Goddard illustrated his theories by means of the oxyhydrogen microscope, in which the polarisation of light, in the calcareous or Iceland double refracting spar, fluor-spar, seminite, mica, quartz, crystals of sulphates of zinc, potash, &c., were submitted to the analysing apparatus, on the revolutions of which, at an angle of 45°, when in a line with the axis of the crystals, the reflection on the medium was colourless, but out of the line, presenting the most beautiful variations of the prismatic rays. In the double refracting crystal a curious phenomenon was exhibited; two circles intersecting each other were reflected, one of the violet, the other of the orange ray, and the parts overlapping were purely white. On the table of the lecturer were a number of diagrams, crystals, and prisms, illustrative of the subject.

AUSTRALIA.—Several interesting papers, on subjects connected with this colony were read on Monday evening, at the third meeting of the Geographical Society. A complete map was exhibited belonging to the South Australian commissioners of Port Adelaide. It was stated, so much has the value of land increased, that Governor Hindmarsh, for two plots for which he gave 80*l.* each, obtained no less than 1000*l.* on leaving the colony. There had been no less than fourteen sail in the harbour at one time, and at the last accounts there were twelve, of which three were of 500 tons burden. A fresh flock of bulls, consisting of 360, had arrived overland, following the first troop of 350, so that the colony was then well stocked; and at the last accounts there were 127 horses, 1527 cattle, 18,910 sheep, and 210 pigs. Captain Washington also stated that 9000 guineas had that day been given for 9000 acres of land, on which to establish two secondary towns in that thriving colony. A communication on the subject of Australia was then read from Mr. Gowan, who, at the conclusion, recommended the introduction of the camel into that country, as not only well adapted to the climate, but also to the exigencies of intercourse between its straggled population, as well as the fittest instrument for exploring the interior, which appears to be inaccessible by any other means of travelling. Captain Lushington gave some particulars of his recent expedition, along with Lieutenant Grey, to explore the interior of Australia. It was also stated that the latter, who had just recovered from the effects of his wound, had returned to the Swan River, to make a new attempt to enter the interior.

CONSUMPTION OF SMOKE.—We have this week had an opportunity of witnessing the operation of Mr. Ivison's patent apparatus for consuming smoke and economising fuel, lately introduced into the factory of Mr. Heywood, Sheepwash, Heaton-lane, Stockport. Without pretending to speak scientifically of the mode in which it acts, we can, from personal observation, pronounce the result to be completely satisfactory. We watched the chimney about an hour, while the factory was at work, and during that time the quantity of smoke emitted was very trifling. On the application of fresh fuel a stream of smoke was visible for about a minute, but this was so inconsiderable that it got quite dissipated into invisibility ere it had travelled many yards from the mouth of the chimney. The contrast between it and the chimney of another factory at a little distance, whose large volumes of black smoke were ever and anon sailing past it, was very striking. A certain degree of training, as well as constant watchfulness, is necessary on the part of the person superintending the fires; but when regular attention is bestowed, the result is proved to be uniformly successful. Mr. Heywood has two boilers to an engine of twenty-five horses' power, and we were informed by the person having the charge of that department, that the saving of coal is already ascertained to be about six tons per week, being about 20 per cent. on the previous average consumption. It may be mentioned that the apparatus occupies very little room, and that the cost of fitting it up will not exceed 2*l.*—*Stockport paper.*

GERMAN MINES.—The mining company of the Grand Duchy of Baden has recently discovered several veins of cobalt and silver. The produce of the cobalt especially has been so considerable, that the company has been induced to establish on the spot a fabric of smalt, which article, by its quantity and excellent quality, becomes now the object of a lucrative commerce.

ROMAN ANTIQUITIES.—Further discoveries have been made of Roman antiquities, by the excavators on the line of the Great Western Railway, in the parish of Streteley. A correspondent informs us that on the summit of a hill of slight elevation near the Thames at Streteley, on the soil being removed about twelve or fourteen inches, a very beautiful tessellated pavement was discovered about eight feet square, the pieces composing it being more than half an inch square each. Orders were given by Mr. M'Donnell, the superintendent engineer, to fence in the spot, and protect it from being disturbed; a Roman coin was also found near the spot.—*Reading Mercury.*



## PUBLIC COMPANIES.

## MEETINGS.

**GREAT WESTERN RAILWAY.**—Notice is hereby given, that the Directors will propose an immediate ADJOURNMENT of the SPECIAL MEETING of Proprietors of this Company on the 20th instant, until Wednesday, the 9th of January next, to be held at the same hour, at the City of London Tavern, Bishopsgate-street, in consequence of Mr. Wood's report not having yet been received by the Directors, and in order to circulate it together with Mr. Hawshaw's report, and the engineer's observations, among the proprietors some days previously to the discussion upon those subjects.

W. H. SIMS, Chairman.  
ROBERT BRIGHT, Deputy-Chairman.

**BORINGDON PARK MINING COMPANY.**—The Directors hereby give notice, that a SPECIAL GENERAL MEETING of the proprietors will take place at the City of London Tavern, Bishopsgate-street, on Thursday, the 27th instant, at Twelve for One o'clock precisely, for the purpose of taking into consideration reports from their mining agents, and to determine as to the further working of the mine.  
S. CLARE, Sec.  
2, White Lion-court, Cornhill, Dec. 13.

**WHEAL HENNOCK AND CHRISTOWE MINING COMPANY.**—The directors hereby give notice, that the SPECIAL GENERAL MEETING of the shareholders advertised to take place on the 20th inst., is POSTPONED until Thursday, the 17th January, 1839, at 12 o'clock precisely.  
Hennock, Dec. 13. H. MOLYNEUX, Sec.

## CALLS.

**LANELLY RAILWAY AND DOCK COMPANY.**—The Committee of Management of the Lanelly Railway and Dock Company give notice pursuant to the powers in the Act of Parliament in that behalf, they do hereby make a CALL of TEN POUNDS per cent. on each share subscribed for or held by the several proprietors of stock in the above undertaking, and such call is to be paid to Messrs. Coombs, Biddulph, and Co., bankers, 48, Charing cross, London, to the credit of the company, on or before Thursday, the 17th day of January next.  
By order, JOHN BIGG, Chief Clerk and Sec.  
59, Old Broad-street, Dec. 13.

**RIO DOCE COMPANY.**—Notice is hereby given, that in accordance with Article 4 of the printed regulations for managing the affairs of this Company, agreed upon at a special General Meeting of the Shareholders, held on the 8th of June, 1837, a CALL of ONE POUND per Share is hereby made, payable on or before the 14th of January, at the bankers of the Company, Messrs. Barnett, Hoares, and Co., whose receipt for the same will be exchanged at the Rio Doce Office for new Scrip Certificates.  
By order of the Directors, R. MESSER, Secretary.  
6, Freeman's-court, Cornhill, December 7, 1838.

N.B. The £4 Scrip Certificates must be returned when exchanging the banker's receipt for the new Certificates, which will include the whole amount paid per share.

**TRELEIGH CONSOLIDATED MINING ASSOCIATION.**—Notice is hereby given, that a further CALL of SEVEN SHILLINGS and SIXPENCE per share is this day made, payable to the bankers of the company, Messrs. Vere, Sapte, and Co., on or before the 31st instant. The proprietors are particularly requested to bring the scrip, with the bankers' receipts, to the office, as usual, where they will receive new certificates in exchange.  
By order of the board, ROWLAND NICHOLSON, Sec.  
23, Threadneedle-street, December 1.

**WEST CORNWALL MINING COMPANY.**—Notice is hereby given, that a call of ONE POUND per share on the Wheal Elizabeth Mine was this day made, payable at the Liverpool Union Bank, or at Messrs. Cunliffe, Brooks, and Co., London, on or before the 24th of December next.  
By order of the board, WILLIAM LAYCOCK.  
Liverpool, November 21.

**WEST WHEAL JEWEL MINING ASSOCIATION.**—Notice is hereby given, that a CALL of ONE POUND per share has been this day made (in conformity with the deed of settlement by which the Association is now governed), payable by two instalments of Ten Shillings each, on or before the 5th of January next, and on or before the 5th of February next, respectively, into the London and Westminster Bank, to the credit of the company with the Western District Banking Company, or into the bank of the said Western District Banking Company at Truro. On production of the bankers' receipts at the office, as under, together with the old scrip, the latter will be exchanged for new certificates.  
By order of the board, ROWLAND NICHOLSON, Sec.  
23, Threadneedle-street, Dec. 4.

## DIVIDENDS.

**NATIONAL BANK OF IRELAND.**—Notice is hereby given, that the court of directors of the National Bank of Ireland have declared a DIVIDEND on the paid-up capital of the company, after the rate of FIVE PER CENT. PER ANNUM, for the half-year ending the 31st day of December, 1838. The warrants for the payment of the same will be ready for delivery at the company's office, 13, Old Broad-street, London, on and after Monday, the 14th day of January next, between the hours of ten and three o'clock; and at the offices of the company in Dublin, Athlone, Ballina, Ballinasloe, Boyle, Carrick-on-Suir, Cashel, Castlerock, Charleville, Clonmel, Cork, Dungarvon, Ennis, Enniscorthy, Fermoy, Galway, Kilkenny, Killybeg, Limerick, Longford, Loughrea, Mitchelstown, Moate, Nenagh, New Ross, Roscommon, Roscrea, Sligo, Tallow, Thurles, Tipperary, Tralee, Tuam, Waterford, Westport, and Wexford. And further notice is hereby given, that the transfer books of the company will be closed on Saturday, the 22nd day of December instant, until after the day fixed for the delivery of the dividend warrants.  
By order of the court of directors, FRAZER R. SMITH, Sec.  
13, Old Broad-street, London, Dec. 12.

## MEETINGS OF SCIENTIFIC BODIES.

## IN THE ENSUING WEEK.

SOCIETY.	PLACE OF MEETING.	DAY.	HOUR.
Royal Asiatic	4, Grafton-street	Saturday	2 P.M.
Statistical	4, St. Martin's-place	Monday	8 P.M.
British Architects	43, King-st., Covent-garden	Monday	8 P.M.
Linnean	Soho-square	Tuesday	8 P.M.
London Electrical	Adelaide-street	Tuesday	7 P.M.
Society of Arts	Adelphi	Wednesday	7 P.M.
Geological	Somerset House	Wednesday	8 P.M.
Scientific Society	Charlotte-st., Bloomsbury	Thursday	8 P.M.
Royal	Somerset House	Thursday	8 P.M.
Antiquaries	Somerset House	Thursday	8 P.M.

## SOCIETY OF ARTS—MEETINGS OF COMMITTEES.

Tuesday, Nov. 18—Agriculture, at half past seven, on Mr. George Aikin's account of the recent agricultural improvements in the Fens, and samples of potatoes from Mr. Roberts and from Mr. Williamson.  
Wednesday, 19th—Meeting of the Society, at half-past seven.

## PUBLIC COMPANIES.

## MEETINGS.

National Provident Institution	13, Nicholas-lane	Dec. 15	12
Mount's Bay Mining Company	King's Arms, Holborn-bridge	15	12
Royal Polytechnic Conso's Mining Co.	George and Vulture	15	12
British and Foreign Banking Company	22, Lombard-street	16	1
Jamaica Steam Navigation Company	55, Abchurch-lane	17	1
Ellengrove Mining Company	New London	17	1
Glasgow, Paisley, & Greenock Railway	Sherriff Court Hall	17	1
Equitable Reversionary Interest	London Coffee-house	18	1
London Assurance Company	Birch-lane	19	1
Essex Marine Salt Company	11, Abchurch-lane	20	2
Wicklow Copper Company	43, Dame-street, Dublin	20	2
Canada Company	St. Helen's-place	27	1
Boringdon Park Mining Company	City of London Tavern	27	12
Colonial Bank	London Tavern	Jan. 2	12
Great Western Railway	City of London Tavern	Jan. 2	12
Wheal Hennock and Christowe	On the Mine	17	12
Mutual Life Assurance	Office	19	12

## CALLS.

Cornwall Great United Mines	11, Dec. 15	Masterman and Co.
Birm., Bristol, & Thames Junction	19	As former calls
British and Foreign Banking Co.	22	Attwoods and Co.
North Tamar Mining Company	22	Phoenix Bank, Liverpool
West Cornwall Mining Company	24	Cunliffe, Brooks, and Co.
Mexican & South American Co.	21	Barclay and Co.
Treleigh Mining Company	75	Vere, Sapte, and Co.
West Wheal Jewel Mining Co.	11	Jan. 5 (See advertisement)
Sheffield, Ashton-under-Lyne, & Manchester Railway	24	10 Rogers & Co., and Smiths.
Ulster Canal Company	24	10 Smith, Payne, and Co.
British American Land Company	57	15 Glyn, Halliwell, and Co.
Treburick Mining Company	28	6d. 16 Austin-frans.
Lanelly Railway and Dock Co.	10	17 43, Charing-cross
Tyr Gunter & Cefn Cwse Colliery	97	17 London & Westminster Bank
Rhymney Iron Company	31	Feb. 26 7, Laurence Pountney-lane
Rio de Anori Gold Stream Works	108	20 Martin, Stone, and Co.

## DIVIDENDS.

Hibernian Joint-Stock Company	2 per cent.	15, Bush-lane	Dec 17
Chelsea Water works			
Bank of British North America	3 per cent.	Great Queen-st.	Jan. 7
East London Water-works		7, St. Helen's-place	3
National Bank of Ireland	5 per cent.	16, St. Helen's-place	10
Reversionary Interest Society		13, Old Broad-street	14
Provincial Bank of Ireland	4 per cent.	42, Old Broad-street	15
Southwest Bridge		14, Queen-street-place	15
Bank of Australia		18, Aldermanbury	15
Mexican and South American Company	5 per cent.	10, New Broad-st.	16
National Cognac Brandy Distillery	8 per cent.	King-st.	16
Argus Life Assurance		39, Throgmorton-st.	17

## NOTICES TO CORRESPONDENTS.

The letter of "A Shareholder" in the Swiss Asphalt Company, shall receive insertion in our next if authenticated by his name.  
Messrs. Fordyce and Co.'s communication shall be attended to in our next.  
Mr. Heathcote's advertisement shall appear next week.  
We have for many weeks passed over, without remark the columns of extracts made by the *Monsieur de Merle* from our JOURNAL, but the late numbers of that publication have so termed with "Mining," "Joint-Stock Bank," and "Railway Intelligence," extracted from the MINING JOURNAL without acknowledgment, that we feel it imperative on us to advert to the circumstance thus publicly. But for the imprudence of the Editor in giving, as a Notice to Correspondents, that "the *Merle* shall continue to give all articles of intelligence interesting to the Mining districts," we might even have allowed the last Number to have gone by unnoticed; if our contemporary would anticipate us in Mining news we should be happy to acknowledge our obligation. It is not a month since that nearly two columns of the *Merle* were filled with extracts from the MINING JOURNAL, respectively classified, without acknowledgment.

THE MINING JOURNAL,  
And Commercial Gazette.

LONDON, DECEMBER 15, 1838.

Few official documents have ever excited a greater share of public attention than that which has been given within the last few months to the Reports of the Irish Railway Commissioners. This attention has been the result of many causes, among which we may enumerate the importance of the subject both to Ireland and to this country—its influence upon capital, expended or about to be expended in the internal improvement of the Sister Kingdom, and, last, not least, the virulent political feeling which has, unfortunately, been mixed up with the discussion of the question, little calculated as it really is for such an exhibition.

The great value of this report, as an assemblage of "useful and authentic data, tending to illustrate the real position and great internal resources of Ireland," was fully acknowledged in our Journal on its first appearance, when we expressed the hope that its publication "might form an era in the future history of Ireland, and be the means of approximating together the labour of the Irish peasant and the wealth of the English capitalist, to the mutual benefit of both." To one feature, indeed, we were opposed—the interference with existing lines now in progress on the faith of Acts of Parliament—and of the hardship of such interference, we can ever entertain but one opinion. With this exception, however, we have pleasure in again bearing testimony to the ability and fairness with which the Commissioners have executed a difficult and most embarrassing task.

On the subject of Ireland our opinions must be well known—they relate not to political grievances, either real or alleged, or to courses of policy on which different opinions are held—they relate solely to her great natural capabilities, to the desirableness of cultivating these resources, of affording employment to her peasantry, and of thus ameliorating (perhaps in time removing altogether) that enormous mass of wretchedness and inaction, which is the real source of all her crimes and miseries. What is it that the Irish peasant asks for?—we speak of him not as the tool of political agitators, but in his own person—it is employment, the means of getting bread for himself and his family. Deprived of this first requisite of existence—this corner-stone on which the peace and well-being of society so completely depend—what can be the result but squalid and reckless misery, but discontent and excitement, ever ready to break forth in acts of violence, incapable, from their nature, of being permanently and effectually quelled.

Setting aside all feelings of humanity, all ties of sympathy, the condition of Ireland can never be viewed with indifference here—she is the ulcerated part of the system, which endangers the safety of the whole, and all the evils of her condition have long been found to recoil with increasing violence upon ourselves. A large portion of that military force for which we have so much need in our distant colonial possessions, is necessarily employed upon a disagreeable and harassing service there. Legislative attention is distracted from the numerous objects which so imperatively require consideration, in order to discuss her never-ending tale of grievances, while the English labourer finds himself too often opposed and thrown out of employment by inundations of the poorer Irish.

Need we say that this is a state of things which ought not to be? that it conduces not to the safety or to the welfare of England—nay, that it endangers both. Need we point out the futility of the various remedial measures which have hitherto been carried into effect by either one party or the other? It is notorious that Legislation has been tried—that coercion has been tried—that agitation has been tried—but that senatorial wisdom, that blood and rebellion, have alike proved total failures, and that Ireland still presents the same lamentable picture as ever. If we seek the cause of these failures, it will at once be seen, that the proposed remedies have not touched at the real source of the evil—they have not given bread to the hungry, or afforded to the Irish peasant that which is of all things the most needful—the means of profitable and remunerating employment. The partial encouragement which has from time to time been afforded by the Government in the execution of public works, and the occasional expenditure of private capital within the last few years in opening mines, have effected more real benefit to Ireland than all the other remedial measures of the last half century.

In the establishment of the Railway Commission, a prospect of an extensive system of public improvement was for the first time held out to Ireland—a plan which would ultimately embrace every portion of the country within its scope, and which, if carried out upon the comprehensive system, which might be expected from a power like that of Government, interested only in the national welfare, would doubtless be productive of the most happy and beneficial consequences. It is well known that this report did not exhibit results which were very favourable to private enterprise—a conclusion which, from the impoverished state of the country, might almost have been anticipated. Some lines, it is true, had offered sufficient inducements to attract capital, and will doubtless afford an adequate return for the investment; but taken as a whole, a general system of railways, like that which this country will soon possess, was not found to offer those inducements which would be likely to lead to its execution.

Under these circumstances, then, it has become a matter for grave consideration, whether some deviation from the ordinary

rules of policy in like cases may not be warranted in the present—whether Government should not step forward to promote, so far as may be actually needful, a system of railway communication, and to confer a national benefit upon Ireland which she has otherwise little or no hopes of obtaining. This line of policy is, we admit, one which under other circumstances we should consider as very questionable, for we are decidedly of opinion that plans which private enterprise is capable of effecting are rarely benefitted by Government interference—a position which the relative progress of railways in France and England has tended strongly to confirm. In the present case, however, there are many important elements to take into consideration, which may well justify some deviation from the ordinary course.

Railway communication has rapidly progressed in England, in consequence of her being an active and wealthy country; and the great result which they are calculated to produce is still further to increase her wealth and activity. Capital has been readily subscribed for these works, because a remunerative return was certain to arise from them; and when this is the case, private enterprise can never need assistance in effecting its object. But the same instrument by which wealth is increased, and commercial activity promoted, where they already are, may be made the means of calling them into existence where they are not, provided their first elements are already in being. That Ireland does eminently possess these elements—that they require proper fostering alone for their due development—are points upon which, we believe, argument would be wasted, since assent can hardly be withheld.

These considerations bring us then to the question, would the introduction of a system of railway communication be beneficial to Ireland?—and to this, we believe, but one answer can be given. Increased and ever-improving facilities of internal communication have been one of the great sources of England's prosperity, and we have ample proofs of the benefits which canals and railroads have produced to our shrewd and enterprising trans-Atlantic brethren. Undoubtedly, then, they would afford the same advantages to Ireland, and the only question now is, whether she should enjoy these advantages or not. Happy would it be for both countries, were her state such as to encourage the free outlay of private capital in these enterprises, yet the very fact that such is not the case, serves only to prove that they are the more needful, that some great system of internal improvement is wanted, to call the latent energies of the country into action, to afford immediate employment to the population, and thus to pave the way to a better eventual state of things. Individual enterprise, looking only to its own immediate advantage, will naturally be slow and cautious in its operation—it may hereafter introduce railways in Ireland as the result of commercial prosperity, but it will not boldly step forward in the expectation of making them the cause. If Ireland is to possess the advantages of railway communication, Government, which has already taken the first step towards this end, by an admirable and judicious investigation of all the facts of the case, must not pause till much more has been achieved. In what manner, or even to what extent, assistance may be needful, we do not here inquire, it is the principle alone that we wish to establish.

Looking at the question in a national point of view—can there be a doubt, we would ask, that Ireland ought—that, in fact, she must, at any price, be enabled to enjoy these advantages, that if she does not, she will shortly be in a worse position than ever? Can we, with safety to ourselves, leave Ireland stationary, or allow her indeed to retrograde, while our own social arrangements are experiencing such marked and rapid improvement? This is a question which is now of deep interest, not as a speculative or party affair, but as a matter of national concern: we have endeavoured, therefore, in the preceding observations, to treat it in a manner wholly devoid of political feeling, for without this is done no just results can ever be arrived at. The subject is, however, far too extensive and important to be discussed in a single article, we have merely glanced at some of its more prominent features, and shall shortly have occasion to return to it again.

We have much pleasure in directing the attention of such of our readers as may be interested in the iron trade, to a long and very able communication from Mr. Wood, of Abersychan, which appears in our Journal of today. The scientific knowledge, no less than the practical experience of this gentleman, entitle his opinions to much consideration; and in the present case, it will be seen that they bear upon subjects of considerable interest in the iron manufacture. Being thus led to mention this important branch of mining industry, we cannot forbear expressing the satisfaction that we feel at its present sound and healthy state, presenting as it does a pleasing contrast to the late depression, and showing that the painful lessons of adversity have been made productive of great and permanent benefit.

## THE FUNDS.

## CITY, FRIDAY EVENING.

Consols closed at 93½ for the opening. Bank Stock 202½ for money. Three-and-a-half per Cent. Reduced Annuities 100½ for money. The premium upon Exchequer Bills 64 66; and on India Bonds 62 64. Spanish Active Bonds 164. Portuguese New Five per Cents 29, and the Three per Cent. ditto 19½. Brazilian Bonds 77½. Colombian 25½. Belgian Bonds 99½. Dutch Two-and-a-half per Cents 54½. Old Five per Cents 100½. New Loan 99. Great Western Railway Shares 9½ 10 pm. Brighton 3½ dis. Blackwell 2½ dis. Birmingham 78 pm. Greenwich 3½ dis. Southampton 5½ dis. and the New ditto 19½ pm.—London and Westminster Bank Shares 3½ pm.

## LATEST INTELLIGENCE.

CITY, TWELVE O'CLOCK.—Consols for Account, 93½; Exchequer Bills, 64 66 premium; East India Bonds, 62 64 premium; Dutch Five per Cents, 100½; Ditto Two-and-a-half per Cents, 54½; Portuguese Five per Cents, 29½; Ditto Three per Cents, 19½. Railways:—Brighton, 3½ dis.; Great Western, 9½ 10½ premium; London and Birmingham, 77 79 premium, New, 23½ 24½ premium; Southampton, 44 45 per share; New, 19 20 prem.; York and North Midland, 1 dis. 1 par.

REDUTH, DEC. 13.—Average standard, 113½ 10s. 0d.—Average produce, 8½.—Average price, 6½ 12s. 6d.—Quantity of ore, 3191.—Quantity of fine copper, 263 tons 4 cwt.—Amount of money, 21,102½ 6s. 0d.—Average standard of last sale, 114½ 16s.—Produce, 7½.

LONDON, DEC. 14.—The Copper market is very firm, at a slight advance. Tin is steady, with little doing. Lead is in some demand, at better prices, and is expected to rule higher after Christmas. Iron firm, a rise of 1½ per ton being already acted on in Staffordshire. Spelter in more demand, 18½ 10s. having been paid for next year's deliveries. In other metals no alteration.



## NEW COMPANIES.

Under this head we propose to notice weekly the several new projects which may be brought forward, and to which public attention is directed, through the medium of the press or otherwise, confining ourselves, however, to "Public Companies," and briefly noticing their objects with such general information as is conveyed by the prospectuses, or which may be gathered from other sources, on which reliance may be placed. We shall, therefore, feel at all times obliged for particulars duly authenticated, on subject of projected companies; and while it will be our object to avoid the exercise of bias in favour of any particular undertaking, we shall at the same time endeavour to collate such information as is calculated to afford to the capitalist the opportunity of judging of its merits, and the correctness of the opinions put forward in the representations of the projectors.

## GLASGOW AND AIRDRIE JUNCTION RAILWAY.

Capital £100,000, in 2000 shares of £50 each.

This railway is to commence in the town of Airdrie, and join (at Rutherglen) the Pollock and Govan Railway, which terminates in the harbour of Glasgow. The general objects of the undertaking are—first, to unite, by an uninterrupted line of railway, the important manufacturing districts, of which Airdrie is the centre, with the river Clyde and the Greenock and Ayr Railways. Secondly: By a junction with the Wishaw and Coltness line to connect the Clydesdale mineral fields with the city and harbour of Glasgow, by a shorter route than any that at present exists; and thirdly, to provide a cheap means of conveying to market the minerals, manufactures, and agricultural produce of the country intersected by the proposed line.

## ORIGINAL CORRESPONDENCE.

## IRON MANUFACTURE—PROPOSED ALTERATION IN THE FORM OF BLAST FURNACES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—As the working of raw or unburnt coal in the iron smelting furnace is now successfully practised in some situations, whilst in others its use has proved wholly impracticable, it may be interesting to some of your readers, who are connected with iron works, to investigate the cause of failure—to which end, and to call attention to a matter of much importance to the trade, I beg to hand you my opinions on the subject, premising that I do not mean my remarks to embrace the use of anthracite.

It appears to me, from experience and observation, that the only coal adapted for use in the blast furnace, in the raw or uncoked state, is of that kind which approaches to anthracite, or rather which is of a medium quality, between that and bituminous coal, of which that obtained at the Dowlais works may be considered a fair specimen. A necessary, and, indeed, I consider an indispensable qualification, to adapt it to this use, is, that it shall in every gradation in its transit from coal to coke, remain firm and compact, with little or no disposition to friability under considerable weight. Unless it be found to possess this character all attempts to make use of it will be found to terminate in loss and disappointment. It must be perfectly clear to every one who has given the matter a moment's consideration, that in its transit through the furnace—by the time it has passed probably much less than half way down—the whole of the volatile and bituminous matter has, by the action of the ascending heat, been completely set at liberty, and is so far as perfectly coked as if the operation had been carried on on the coking hearth. Soon after its introduction into the furnace it becomes subject to a considerable, and constantly increasing pressure, from the addition of fresh materials. The invariable form given to furnaces, from the boshes to the charging plate, is a frustum of a cone or parabola, the area of the small or upper end bearing various proportions to that at the boshes, according to the fancy or experience of the party erecting it. It therefore follows, that as the materials descend, they occupy a regularly increasing area, and must consequently be continually expanding laterally; the effect of which, combined with the pressure of the superincumbent layers, subjects the coal or coke to a sort of grinding process, which, if soft and friable, must infallibly reduce it to a pulverulent mass, which in a great measure clogs the furnace, thereby preventing the passage of the blast, which not only lessens the make, but deranges and interrupts the process of reduction, by enveloping the ironstone in a close impervious body of dust, which, from its non-conducting property, effectually excludes the necessary heat, until it arrives in a crude state, at that part of the furnace where separation of the iron from the earthy matter ought to commence. The consequence of this is, that the process of cementation has been retarded, and imperfectly performed, and the iron produced is of a very inferior quality.

It will, I believe, be found to be invariably the case, that coal which contains a large proportion of bituminous matter is not adapted for use in its crude state. As this substance, in the process of coking, becomes volatilized, the coke becomes a porous spongy mass, readily reducible to powder by a slight pressure, and although when so far prepared it is a perfect coke, was it introduced into the furnace in this state, the result would be the same as I have just described as arising from the use of raw coal. It therefore becomes necessary to carry combustion on in the coking process to a greater extent, and to raise the heat to that point which will produce fusion of the earthy matter which is invariably found in coal. The coke then becomes sufficiently dense and hard to resist the tendency to pulverization under pressure, without which the smelting process cannot be successfully carried on.

Iron works established where the coal is largely charged with bituminous matter, labour under very great disadvantages as compared with those where it is otherwise, inasmuch as a very considerable extra quantity is necessary to produce a ton of iron, for, in the first place, the major part of the bitumen must be driven off, amounting to 20 or 30 per cent., and in many instances even more than this. When this is effected the coke will probably be found in a soft, friable state, rendering it necessary to carry on combustion to a greater extent, for the purpose of increasing its capability of sustaining pressure, thereby occasioning a further loss of at least 10 per cent., leaving a proportion of coke under favourable circumstances, and the greatest attainment not exceeding two-thirds the original weight of the coal; but in windy weather, and a little neglect on the part of the men who have to conduct the process, the waste will be at least one-half. These are casualties against which it is impossible to guard at times, under the very best management. In the next place, it is generally the case that bituminous coal is in combination with full as large a percentage of earthy matter as the non-bituminous, consequently when the volatile matter is driven off, the proportion which the earths bear to the carbon is much greater in the former than in the latter. In the same, or even a greater ratio, is the value of the coal reduced, for the earths must be brought into a state of fusion in the furnace, and not only this, but a proper proportion of limestone to flux them—to effect this a considerable portion of carbon must be consumed, thereby leaving a smaller quantity for the legitimate purpose of reducing the ore.

It is a question worthy of consideration, whether the form at present made use of for the body of the furnace is, under all circumstances, the most eligible, and more particularly so, when the coal contains an excess of bitumen. I presume that what I have stated as to the lateral motion to which the materials are subjected, in furnaces of a conical form, will be considered conclusive, as to the tendency they have to reduce the coke to a state of powder. The weight of the materials will naturally have a tendency to produce this effect, but I think it cannot be doubted but this tendency is materially increased by the said motion. If this is the case, it must be desirable to modify the form, so as to reduce this effect as far as may be practicable.

This end, I consider, may be best accomplished by making the furnace cylindrical, which will produce a perpendicular descent of the materials, thereby doing away with any injurious effect from lateral motion. The question, however, is, can any sound objection be raised to this form? Formerly it was the practice to contract the area of the tunnel head, or top of the furnace, to about an eighth of that at the boshes, but of late years it has been found advantageous to increase the area, which is now in general way made to bear a proportion of a fourth or a third, and in some places above half that at the boshes. Here is an approximation to a cylinder, and with most decided advantage; and I have little doubt, if it is drawn nearer, the advantages will be still further increased. Sir John Guest formerly erected a cylindrical furnace at Dowlais, which he worked for several years, and which produced a very large quantity of iron; there was, however, a strong prejudice against it on the part of the

workmen, as there generally is when anything like an innovation on long-established custom is introduced, and it was at length abandoned, without there having been any thing like a satisfactory reason assigned for it. I must, however, admit, that I think alteration might have been made in it with beneficial result, without abandoning the principle. My opinion is, that it was put up much too large, it having been then, as it has continued to be with many, a favourite plan to erect large furnaces, which, in common with many others, I consider very objectionable, they being very unmanageable, and seldom produce good iron, or indeed exceed in make that of furnaces of a moderate size. In many places they are eighteen feet in diameter, and contain a mass of materials which it is wholly impossible to distribute the blast equally through; the consequence of which is, that it forms channels through particular parts, where intense heat is produced, whilst other parts are comparatively cold. These occasions great irregularity in the operation of the furnace—the ore is very imperfectly reduced, and the quality of the iron made, very inferior; with small furnaces these disadvantages are, comparatively speaking, of rare occurrence; and as, under proper management, furnaces fourteen feet in diameter, produce as much iron and work with much greater regularity, they possess decided advantages over those that are larger. In recommending the use of cylindrical furnaces, and more particularly in situations where the coal contains an excess of bitumen, I shall take a fourteen feet furnace as a standard of size, and I find that a cylinder twelve feet in diameter will be of nearly the same cubical content—this size would, therefore, in my opinion, be the most eligible. The reduced diameter at the boshes will confine the heat within narrower limits, and cause it to ascend higher, thereby expediting the reduction of the ore, and at the same time increasing the density of the coke at an earlier stage of the process. The diameter of the top will also be such as will admit of its being properly charged without any difficulty; and upon the whole I feel quite satisfied decided advantages will be derived from the use of this form.

Having extended this letter beyond what I intended when I commenced, and probably beyond your convenience, I shall take leave of the subject for the present, and I am, Sir, your obedient servant,  
Aberystwyth Iron Works, Dec. 10. WILLIAM WOOD.

## MINING CORRESPONDENCE.

## ENGLISH MINES.

## ENGLISH MINING COMPANY.

Great St George, Dec. 11.—I hand you the setting reports for December, which are on the whole satisfactory, although in some instances a rather considerable advance has taken place in the tributes. We sample to day at Great St. George 512 tons of ore. H. HUMPHRIES.

## CORNUBIAN MINE.

Chiserton, Dec. 11.—Our forty fathom level east, on the south lode, is looking well—a good lode in this level. The same level west without alteration. We have suspended driving east at this level, on the Chiserton lode, and put the men to drive west, and as our setting-day was on Saturday last there is not anything done on the lode as yet that we can report from. The thirty-two fathom level west is getting on fast towards the old engine-shaft, but without alteration. The twenty-four fathom level east, on Chiserton lode, still looks kindly. The same level west without alteration. In the sixteen fathom level west we have a good lode, and I expect that in the course of a week or ten days we shall get under the winze that is sunk about five fathoms below the eight fathom level; and in this winze (as I stated some time ago) there is a good lode. We have now dressed about nineteen tons, and undressed eleven tons. J. BORLASE.

## WEST CORNWALL MINING COMPANY.

Wheat Elizabeth Mine, Dec. 11.—I am glad to inform you that we have cut the lode at the forty-three fathom level; it is not very rich at present, but very kindly, being composed of beautiful soft sugary spar and copper ore and munda; we save all the lode to dress for ore; it is a foot and a half wide, and does not underlay so fast as it did, from the ten to the twenty fathom level, and from thence to the thirty-three fathom level; the cross-cut from engine-shaft, at the twenty fathom level, to the lode, is eighteen fathoms, and the cross-cut at the thirty-three fathom level is 10 fms. 2 ft., and at the forty-three fathom level is 8 fms. 2 ft., so the lode is gone more downright from the thirty-three fathom level to the forty-three fathom level; the tributers have got a good lode at back of thirty-three, and a kindly lode in the north end. There is a good lode of copper ore gone down in the bottom of the thirty-three fathom level, at same place, two feet wide. My opinion is that we shall have a good lode at the forty-three fathom level; driving a little way we have about nine tons of lead to the surface, and five tons of copper. J. TREGOWETH.

## EAST WHEAL STRAWBERRY MINING COMPANY.

Dec. 10.—In reporting to you to-day, I beg leave to inform you that the men in the new engine-shaft have sunk in the past week three feet of ground, which is still hard. At the twenty-four fathom cross-cut driving towards this, the ground continues favourable for driving. The lode in the winze, sinking below this level, continues good work for tin. I cannot say any thing of the bottom level, in consequence of the water having been in all the week, but as we have a favourable change in the weather, I hope we shall be in fork in a day or two. No alteration has taken place at Boundary that requires any remarks. FRANCIS EVANS.

## ST. HILARY MINING COMPANY.

Dec. 8.—In the engine-shaft the lode is two feet wide, ore throughout. In the seventy fathom level west the lode is ten inches wide, producing half a ton per fathom. In the seventy fathom level east the lode is eighteen inches wide, with good stones of ore. In the sixty fathom level east the lode is eighteen inches wide, producing one ton of ore per fathom. In the winze, in bottom of sixty fathom level, the lode is eight inches wide, producing half a ton of ore per fathom. C. H. RICHARDS.

## GWINEAR MINING COMPANY.

Dec. 8.—In the thirty fathom level east the ground is improved, with some stones of tin; this end is within eight feet of being under the tin we had in the twenty fathom level; so soon as that is driven we shall rise in the back of the level to communicate, when I hope we shall have more tin. In the twenty fathom level east the ground is good, with stones of tin. The twenty fathom level east, on Copper lode (eight inches wide), no alteration; there are spots of copper in the lode sometimes, but none to select. In the stopes, bottom of adit, the ground is good, and the men are breaking some tolerable tin stuff. I think we may say our prospects are a little more favourable. One of the pitches is much improved; the men consider they are getting extra wages. I hope it may be so, for tributers were never remembered so scarce as at present. C. H. RICHARDS.

## REDMOOR CONSOLIDATED MINING COMPANY.

Callington, Dec. 10.—Johnson's Flat-rod engine shaft is sunk six fathoms three feet below the sixty fathom level, without any further discovery of the lead lode in the shaft. It appears that the dip of the lode in this part is almost perpendicular, which is by no means unfavourable; the lode in this position is generally found to be more productive than when of a quicker underlay. The east and west lode, discovered in the shaft, has a very promising appearance, being now from twelve to fourteen inches in width, and producing some good stones of tin; the ground continues much as hitherto, of a favourable description. The rise in the back of the sixty fathom level north, the lode is one foot wide; rich work for silver lead ores. Going south the character of the lode remains much the same. East, on Johnson's lode, at this level, we have driven north on the cross course from two to three fathoms, and find no other part of the lode has yet presented itself. The lode in the fifty fathom level north has a more favourable appearance, about six inches big, yielding a little lead ore. In the winze sinking below the thirty fathom north, the lode is from four to six inches wide, spotted with lead ore. At the north mine, in driving east, at the twenty fathom level, the lode is much the same character as hitherto—ground favourable for driving. The two parcels of silver lead ores, sampled on the 18th ult., were sold on the 4th inst. to B. Somers, Esq., as under:—No. 1, 16 tons (21 cwt.) 3 cwt. 1 qr., at 16l. 1s. per 21 cwt. dry weight. No. 2, 19 tons (ditto) 1 cwt. 1 qr., at 4l. 12s. per ditto. SAMUEL HARPER.

## UNITED HILLS MINING COMPANY.

Redruth, Dec. 8.—In the twenty-five fathom level west of diagonal-shaft the lode is two and a half feet wide, and produces much ore. In the winze sinking in bottom of the fifty-five fathom level the lode is one foot wide—six inches good for ore. The stopes in bottom of the thirty-five fathom level are from five to six feet wide—ore of excellent quality. In the adit end east, cross-cutting south, one foot wide—six inches good for ore. Stopping back of adit level east, four feet wide—three feet of which good for ore. In the ten fathom level east of eastern shaft, three and a half feet wide—two feet good ore. In the twenty fathom level east of ditto, two feet wide, not producing much ore. In the winze sinking in bottom of twenty-seven fathom level, one and a half foot wide. Ditto, in eastern shaft sinking under thirty fathom level, two and a half feet wide—eighteen inches ore of a fair quality. In the thirty-five fathom level east of Turton's shaft, three feet wide—two feet good for ore. In the thirty-six fathom level west of Turton's shaft, three and a half feet wide, ore throughout, but coarse in quality. In the forty fathom level east of Williams' shaft, four feet wide—eighteen inches ore of a fair quality. In the forty fathom level west of ditto, six feet wide, producing good stones of ore. In Williams' shaft sinking under the forty fathom level, six feet wide—two feet of which good ore. C. PENROSE.

## HOLMBUSH MINING COMPANY.

Stoke Climsland, Dec. 10.—We have now undertaken to put you in possession of the underground prospects and operation in the mine, as this day having come under our inspection—the principal features requiring notice, and to be embodied in this report, are as follow:—The 100 fathom level cross cut north is driving towards the lode with a steady progress, in tolerably favourable ground. The eighty fathom level west of the engine-shaft wears just the same appearance as stated in last report, the lode being about six inches wide, worth altogether one ton of ore per fathom. The seventy fathom level does not exhibit so favourable an appearance as it did when last described, not exceeding ten inches in width at present, and in produce two tons of ore per fathom. The lode in the winzes sinking below the seventy fathom level is at present about eight inches wide, and in quality much the same as stated in last report—worth about one ton of ore per fathom; this winze it is expected will be holed to the eighty fathom level in the course of a few days, which will facilitate the working of the ore ground in this part of the mine to the best possible advantage. The seventy fathom level, on the Flap Jack lode, is still without any material improvement, although it is composed partly of stones of ore, and spar and munda, accompanied by capel on the north wall, which characteristics entitle it to be esteemed a very kindly lode. The sixty fathom level is yet suspended on account of the insufficiency of air in the end, and the men employed in it rising on the back about ten fathoms from the present end, in which there is a most excellent course of ore, two feet wide, and which will, fairly valued, produce six tons of ore per fathom—worth 8l. per ton. The fifty-two fathom level also, as the directors are aware, has been suspended, the men being more advantageously employed in sinking a winze in the bottom of this level to meet the rise in the back of the level below the sixty-two, which important communication it is more than probable will be effected by the end of this month, so as to admit of the production-ground between the two levels being worked most effectually and profitably, and at the same time of the driving of the both ends (the fifty-two and sixty-two) being resumed. The lode in the winze is not yet taken down—proposed to allow it to stand until the winze is through, consequently its quality cannot be described, but from a good lode being under and above that it will prove productive. The stopes in the back of the fifty-two fathom level still hold good, being continued between regular lodes, exhibiting some masterly features—two and a half feet wide, and about six tons of ore per fathom, excellent quality—worth about 45l. per ton. The lode in the forty fathom level (which was omitted to be described in last report) is now looking rich, two feet wide—worth from four to five tons of good ore per fathom, and fully realises our former calculations as to its being the same run of ore ground as that in the levels below the fifty-two and sixty-two. The thirty-five fathom level is not improved, the lode being small as yet, but hope that the ore ground in the forty fathom level will hold up to this level when driven far enough west to take its general run. It will therefore appear, from the foregoing description of the ore ground working on tutwork, that it is fast being brought into an active state of returns, and that its character and productiveness are realising our expectations and former calculations, and there cannot be a doubt that when the discovery is brought into full working by winzes, &c., in the way contemplated, the returns will be materially augmented. The tribute ground looks favourable, and improved. The pitch in the back of the fifty-two fathom level, which will yield for next parcel to be sampled, say from thirty to forty tons; this pitch is now working in the back within five fathoms of the bottom of the forty fathom level above, and the ore holds good. The pitch in the back of the eighty fathom level, where the stopes originally were, the lode is much improved—produce by next sampling about twenty tons. The pitch in the seventy fathom level looks much improved; this lode was also worked lately as stopes, and will produce next sampling about fifteen tons. The other pitches look encouraging. From what, therefore, has been seen of the state and prospects of the mine, it may be fairly inferred that it will admit of good and steady returns for the future, and there can be no hesitation in saying that the next sampling will be upwards of 150 tons. J. H. HITCHINS. F. PHILLIPS. T. RICHARDS.

## TRELEIGH CONSOLS MINING COMPANY.

Dec. 8.—I have this day inspected the whole of the underground departments, and am much pleased to tell you that, at Christo, the thirty fathom level is looking well, and each end much improved since my report of last week. The bottom level has also a flattering appearance, but is yet poor for copper. The pitches in this part are looking much the same as on our last survey day. At Shauger we have an improvement in the twenty-end, which will now pay for driving, besides leaving tributers' ground. In this part we have two pitches working, and the men getting wages. W. SINCOCK.

## WEST WHEAL JEWELL MINING ASSOCIATION.

Dec. 10.—In Buckingham's perpendicular shaft the ground is favourable. We expect to hole to the twenty fathom level, with a borer hole, this day. This shaft is also sunk about nine feet below the twenty fathom level, and the ground continues favourable. The thirty fathom level east, on Flea-trap lode, is about fifteen inches wide, composed of spar, &c., with some spots of black and yellow ore. The forty-two south, on Hodge's cross-course, ground favourable. At the south adit shaft we are in course of sinking below the deep adit. Our tributers are dressing their ores, which we purpose sampling on Wednesday, the 19th inst. At Wilkinson's engine-shaft we have been sinking the north side of the lode during the past week; we have cut into the lode in two places, and find it interspersed with black, grey, and red ores. A more particular account you will have in our next. The deep adit west, on the Great Gossan lode, is about three feet wide, composed of peach, spar, &c., interspersed with good stones of yellow ore. M. WILLIAMS.

## TINCROFT MINING COMPANY.

Dec. 5.—In reporting to you on the present state of this mine, I beg, in the first place, to observe that we have still a good lode for copper and tin in the 142 fathom level east from the engine-shaft. The same level west is producing saving work for tin, with some copper. The bottom of the 132 is still producing good work for tin and copper. The 132 west is yielding a small quantity of copper ore, as is also the 120 east and west. The 110 end, and stopes on the back of the level, continue to yield good work for tin and copper ore, worth from 20l. to 30l. per fathom; this latter end is now under the most productive ground in all the levels above. The ninety and eighty-one ends, with the winzes in the bottom of the eighty-one, continue much the same as for some time past, i.e., yielding fair quality work for copper and tin. The seventy-two east, and pitches in the back of the level, are producing excellent work for tin, and are very promising. Our pitches on the whole (just now) are looking better for tin than for copper, and our prospects may be considered very favourable. WILLIAM PAUL.

## TAMAR SILVER LEAD MINING COMPANY.

Dec. 10.—The engine-shaft is now sunk about three fathoms under the 135 fathom level. We have very favourable ground (14l. per fathom), and the lode still yields some good work. At the 135 fathom level driving south, the lode is from two to three feet wide, producing silver lead ores. Driving south, at the 105 fathom level, the lode is now a foot and a half wide, and produces silver lead ores. In the ninety-five fathom level driving south, we are desuing the lode, consequently are unable to report its character. In both the seventy-five and eighty-five fathom levels driving south, we have for a considerable distance been passing and continue to pass through ground that will set at low tributes; and in each end we have a very promising lode, producing good and saving work. We have been much impeded in the dressing department, in consequence of the late boisterous weather; but we hope to have dressed against Monday next, about fifty-six tons, being the same quantity we sampled last month. MARK JAMES.

## FOREIGN MINES.

## COLOMBIAN MINING ASSOCIATION.

From the Coast Agents, Cartagena, October 16.

PAMPLONA DISTRICT.—We expect to hear by to-morrow's mail from Barranquilla that the 504 serons of ore (about twenty-eight tons) have been shipped per Archer. We have not heard of the arrival of any more at Barranquilla. The Gran Bolivar (Duncan's boat), which reached Honda the 24th Sept., will bring down a lot of ore from Pedral.

From Mr. Williamson, September 4.

SUPIA DISTRICT.—Mine Department.—Unremitting attention is paid to our several trial works; we find it impossible to push on the workings in the deep Cruzada adit quicker than we are now doing—the air is very confined; there is, however, one thing in our favour, the extent driven in the deep adit has lately been the means of draining the Escalatoria level; and the sink, No. 14, we intend to prosecute immediately; also the sink, No. 11, in the Patuca level.

Gamburn Lode.—This lode has been under consideration, and Mr. W. De-genhardt is in favour of driving the cross-cut, No. 24, from the Cruzada level, to intersect the lode, instead of opening out the old level near the eighteen-head mill. It is intended to commence workings on this lode as soon as possible. Our operations on the Candado lode proceed favourably.

Sept. 11.—Mine Report.—This document you have enclosed, therefore I cannot at present have much to state regarding the mining operations. The sinks, Nos. 11 and 14, I have requested the mine agents to prosecute by night as well as by day, as they are both important works, to which every impulse should be given.

Gamburn Lode.—I have also directed that the cross-cut from the Cruzada adit may be resumed, in order to prove this lode; according to Mr. C. De-genhardt's statement, we shall only have to drive from sixteen to eighteen fathoms to intersect the lode.

## Mine Officers' Report for August.

Sources of Ore.—In my report for July, I stated that I had given some natives work in the slope No. 80, but it was not the slope No. 80, it was the slope No. 66. I am glad to say the average width of the ore has increased in this slope, and now contains nearly three feet of very fine ore.



## RAILWAY INTELLIGENCE.

## BRISTOL AND GLOUCESTERSHIRE EXTENSION RAILWAY.

ore. It is likely that we may be able to sink the Patacon sink, No. 11, and the Escalation sink, No. 14, deeper—both levels are nearly dry; this circumstance will enable us to sink, and afford a supply of mineral for the mills. The back stopes, in the San José level, north and east of San Vicente rise, will give us rather more ore than I expected in June; the height of some arches of ground has increased.

1. *Cascabel Lode.*—*Cascabel Level.*—The lode in this level was, on the 7th ult., 28 inches wide, of compact pyrites, and still remains so; the ground hard, but good for breaking.

2. *Patacon Lode.*—*Cross-cut, No. 5.*—We have driven on the lode west (which we have cut with this cross-cut) 3 fms. 2 ft.; the lode is six inches wide, of mineral mixed with caliche; the north, or hanging-wall, has a more perpendicular underlay than formerly; the ground hard, but good for breaking.

3. *San Juan Cross-cut, No. 7.*—I expect to cut the lode soon, but the rocks are very hard—the ground still mixed with mineral.

4. *Cruzada Lode.*—*San José Level, South Branch.*—We commenced working here in the months of July and August; the lode has an average width of fourteen inches, and consists principally of black blende, galena, and iron pyrites; the ground good for breaking, and in the bottom the ore is better than in the back.

5. *New Rise, in the back of the Ninety Fathom Level.*—The rise has a height of 7 ms. 3 ft. The ground in the latter part of the month became a little harder, and it was difficult to rise; the air was very bad; and no ore is visible.

6. *Eighty Fathom Level, west end.*—The ground harder, and no discovery has taken place.

7. *Stope, No. 66.*—From this stope, which I named in my last No. 80, we have raised a good deal of mineral, and the stope will still give us for some time good mineral. The ground is free for breaking, and the foot and hanging-wall very regular.

8. *Candado Lode.*—*Second Winze, No. 30.*—In the beginning of the month a communication with Dunstone's cross-cut and Cruzada cross-cut, north-east levels, was effected with the rise No. 30, which has given us good air in both stations, and now we are able to rise the third rise situated in the Cruzada cross-cut, north-east end upwards, and also drive the present ends further east. In Dunstone's cross-cut, north-east end, better ore has been cut, and I have some hopes that there may be still more improvement in its quality. The ground good for breaking.

9. *San Nicolas Cross-cut.*—The rocks harder than formerly.

10. *Candado Mine.*—*Edwards's Level.*—The extent driven last month was through a fine gossan, caliche, and some small branches of mineral; the ground very free for breaking, but requires a good deal of timber.

11. *Degenhardt's Cross-cut.*—This cross-cut is 1 fm. 5 ft. below the old cross-cut mentioned last month. It has a perpendicular depth below Edwards's cross-cut of 9 fms. 4 ft. 6 in. We have not opened out the old cross-cut, but instead commenced this new cross-cut 1 fm. 5 ft. deeper. The ground in the old cross-cut is very loose, and difficult to secure. By 2 fms. 4 ft. we cut the same branch which was cut in April last (see Edwards's diagonal cross-cut); it has a width of fourteen inches, and consists of fine gossan and caliche, but we cannot open out on this branch in this quarter. It is too near to grass, runs east and west to the surface; and no backs are here, but I have some hopes that this branch may make a good lode in greater depth.

12. *Winze, No. 11 (see Candado Section).*—We have sunk this winze last month 3 fms. 14 ft.; the ground was very good for sinking, but the mineral very changeable—sometimes nearly two feet wide, and at other times less; the average will be about fifteen inches of very fair mineral; the air was at the end of the month confined.

Number of miners at work:—Europeans, 10; natives, 101. Ground expended in square fathoms, 109 fms. 17 ft. Ores raised, 555 tons.

## Reduction Officers' Report for August.

The returns for the month of August consist of four ingots, weighing together 32 lbs. 11 oz. 13 dwts., and containing by my assays of fine gold 20 lbs. 2 oz. 15 dwts., and of fine silver 11 lbs. 5 oz. 5 dwts. The total loss in the whole treatment appears at 48.75 per cent. Produce of fine gold per ton of ore treated, 8 dwts. 1 gr.; of tails and refuse re-dressed, 4 dwts. 12 grs.; produce of fine gold per stamphead at work, 15 oz. 5 dwts. 19 grs.; mercury consumed appears at 4558 oz. troy—10.45 parts—313.4 dwts. avoidupois; concentration prior to amalgamation as 2.29 to 100; number of stampheads at work 15½, at the rate of 23 cwt. per diem. During this month, there have been treated, 602½ tons of rough ores, of which 213½ tons from the Candado, and 389½ tons from the Cruzada lode.

The Stamping Mills are all in good order, only mill union has been stopped entirely for a few days, because the outside gudgeon got loose, and required to be secured again; the arrastre is also in good order. The rain fallen during the month amounts to 4½ inches.

From the above statement, it will be observed, that the returns, when compared with the quantity of ores treated, have fallen off considerably; the reason is, that only a small portion of these ores were of that free decrepitate nature in which the gold is generally found in larger particles, and the rest consisted of a very hard compact pyrites, looking, as the miners say, "very hungry." This latter sort of ore contains the gold in an exceedingly minute, almost impalpable state, which only can be freed from the pyrites by long-continued trituration, to which also we must attribute the increased consumption of mercury.

## ASCENT AND DESCENT OF MINERS IN DEEP MINES.

It will be seen from an advertisement in another part of our paper, that the sums placed at the disposal of the Royal Cornwall Polytechnic Society, for the purpose of promoting the application of machinery to facilitate the ascent and descent of miners in the deep mines of Cornwall, amount to 540l. This is certainly a handsome sum, and highly creditable to Cornwall, especially as it has been contributed by a few individuals only, who take a deep interest in the success of every scheme which is likely to lessen the sufferings of humanity. Further sums will, however, be required, and we have little doubt of their being forthcoming in answer to the appeal now made—to which subscription we gladly contribute the sum of Ten Pounds.

It is already known to our readers, says the editor of the *West Briton*, that the Minister of Finance in Hanover, has kindly furnished Alfred Fox, Esq., the Hanoverian Consul, at Falmouth, with documents explanatory of the method of ascending and descending the deep mines of the Hartz; and we are now enabled to state that a circular has been printed by the society, containing drawings and estimates of this method, with alterations and improvements, by Mr. E. O. Tregelles, civil engineer, which may be obtained from the secretaries or agents. This circular, with the accompanying engraving, is an important document, and we hope it will be extensively read by all persons who take an interest in the subject to which it relates. According to an estimate which it contains, it appears that the total cost of machinery for descending and ascending mines 200 fathoms deep, would be about 2365l.; and that a less costly modification of the machinery may be estimated at about 1965l. The following statements and observations conclude the circular, with the exception of a table which we cannot conveniently insert:—

"The cost of fuel required to raise one man 200 fathoms may be estimated thus—160 lbs. the weight of a man  $\times$  1200 feet—192,000 lbs.—say 200,000 lbs. If the duty of the engine be taken at 15,000,000 lbs. raised one foot high by consuming a bushel of coal, we have the result of 1.75th part of a bushel, as the quantity of coals consumed in raising one man.

"The general charges, including wear and tear of machinery, may be estimated at 20s. per day, or 1d. per day, per man, if used by 240 men; and the cost of coals for descending and ascending once, at 4d. per man; therefore the general charges and the cost of coals would amount to 14d. per day for the total cost of each man.

"The expenditure of labour in descending and ascending the Cornish mines by ladders, is plainly exhibited in a note at page 10 of the report of the Cornwall Polytechnic Society, for 1834, to be equal on an average to one-fifth of the day; if we take the average weekly earnings of miners at 15s., we have 3s. per week as the cost of the descent and ascent of each person; whereas, by the foregoing calculation, it appears that by the apparatus, it would cost only 14d. per day, and the time occupied may be estimated on an average at twenty-four minutes per day, or 120th of the time, which equals 9d. per week, which added to the cost, is 1s. 6d. per week on each person, and the annual saving on 10,000 men, would be 39,000l.

"But the benefit conferred by diminishing the fatigue tending to shorten life, cannot be reduced to accurate calculation. It appears, however, by an essay on this subject, laid before the Polytechnic Society at its last annual meeting, 'that at the occupation of the miner shortens his life by at least twenty years; not that the whole of the injury sustained is chargeable to the descent and ascent by ladders, but it must be admitted, that a large portion is attributable to excessive fatigue, in climbing from a great depth, at the end of a laborious day's work.'

SIR JAMES ANDERSON'S STEAM CARRIAGE.—In a communication to *Saunders's News Letter*, Sir James Anderson states that recent trials of his engine have given the following results:—"One hundred weight of coke per hour produces 7500 gallons of steam per minute, driving the engine at a speed of twelve to fifteen miles per hour, at a pressure of 50 lbs. to the inch, and giving about 4000 gallons of steam per minute beyond the required consumption. In other words, this immense power is obtained at a cost of one penny per mile!"

LONDON AND GREENWICH RAILWAY.—The number of passengers on the line from the 7th to the 13th inst., was 23,691, producing (including creek and footpath) 617l. 19s. 2d.

SHEFFIELD AND ROTHERHAM RAILWAY.—We are informed that, from the 1st to the 30th of November last inclusive, 37,644 passengers have been conveyed on the above railway, averaging more than 1254 persons daily.

LEEDS AND BRADFORD RAILWAY.—We are glad to find, that the important question of a railway communication between Leeds and Bradford is once more revived, under circumstances which induce us to hope it may at length be realised. From a recent, but somewhat cursory survey of the country, it has been found that the best, if not the only practicable line, is through the valley, by way of Shipley; and, although this will undoubtedly increase the distance four miles, namely, from ten to fourteen miles, this is a matter of very inferior moment, as by that route very easy gradients may be obtained, not greater than eleven or twelve feet in the mile; independent of which, the line is generally free from serious engineering difficulties, and the land necessary to be purchased is of moderate value.—*Leeds Mercury.*

GLASGOW, PAISLEY, KILMARNOCK, AND Ayr RAILWAY.—This great national undertaking is carried on most satisfactorily, and the whole expenses yet incurred have not exceeded the Parliamentary estimate—a circumstance as unprecedented as creditable to Mr. Miller, the engineer. The same may be said of the first part of the line as far as Paisley, which is executed by Mr. Locke, for the Ayrshire and Greenock companies jointly. The whole line will be completed by the time the Glasgow end is ready, which will be in the spring of 1840; and this circumstance being known, must, we should imagine, operate favourably on the shares in the market, which have been depressed by the doubt so imprudently allowed to exist in the mind of the public as to its completion, and the sufficiency of the traffic to secure a remunerating dividend. This, we are assured, is beyond all doubt more than sufficient, even at present, to pay upwards of 10 per cent. on the outlay, which will not come up to what was expected by nearly 100,000l.; whilst the prospect of an accession to it by the trade which must accrue from the ports and harbours at its extremities, and the great contemplated line from Carlisle, by Dumfries to Kilmarnock, will make it one of the most profitable investments in the kingdom. On the portion between Ayr and Kilwinning, the work is proceeding briskly. The tacksman of the Bellrock Quarry, who has contracted for 30,000 stone blocks, has already about 1500 dressed, bored, and ready for laying. The *Margaret* of Newport arrived on Saturday last, with about 1300 of 15 feet rails, which the contractors will immediately commence laying. The enclosure walls are almost wholly completed; and the line between Ayr and Kilwinning is expected to be opened in June next, and the whole line in spring 1840.

MANCHESTER AND LEEDS RAILWAY.—The portion of this extensive undertaking which lies between this town and Rochdale is in a very satisfactory state of forwardness, and will, in all probability, be opened in May or June next. Of the part between Mills Hill and Rochdale, which was the most heavy and difficult, about three parts in the hundred only remained unfinished in the middle of November. The cuttings and embankments, the latter including the important one of Mills Hill and Castleton Clough, were nearly perfected, and permanent rails will be laid in good time on the whole of those works. The bridges, from a difficulty in obtaining stone, were the only works not in a corresponding state of forwardness. The tunnelling at the summit is proceeding as fast as human skill and activity can promote it, and at Gauxholme a large muster of workmen are daily employed in sinking foundations and cutting stone for the erection of warehouses and other requisite buildings.—*Manchester Guardian.*

THE PRESTON AND LONGRIDGE RAILWAY.—This line of railway commences, at its eastern extremity, in a field on the western part of an estate near Longridge, lately purchased by the railway company, situated in the township of Dilworth, and is about 200 yards from the high road leading from many of the trading towns in the eastern parts of Lancashire and Yorkshire, to Preston; it is the same distance (about 200 yards) from the celebrated stone quarries called "Tootal Heights." The entrance to the railway is cut out of the solid rock, with which material the estate abounds. From this entrance there is a fine view of the Chipping-hills, and the diversified scenery which adorns the landscape below. The railway in this place, from the entrance, extends in a straight line about 200 yards, at the termination of which length it is continued in the form of a curve, over a viaduct of one arch, which is being erected over the tramroad called "Wilkinson's Old Lane." It then extends in a direct line for about three miles, leaving, on the south side, the village of Longridge, at a distance of about 300 yards; it then passes under another bridge, built at the four-lane-ends, in the township of Alston; to the west, or rather north-west of which is the beautiful mansion called "Gleadale House," late the residence of James Dilworth, Esq., which lies within a few hundred yards from this part of the line. In this locality the railway is about 200 yards from the public highway to Preston, so that any weight or bulk of goods of any kind, might be readily conveyed from the station-house that will, in all probability, be erected near the Alston four-lane-ends bridge. The road, further west, proceeds towards the Plough Inn, in Grimsargh, which it passes within ten yards of the front door, having to the right the elegant residence of James Blanchard, Esq., and is carried in a straight line to the eastern part of the Parsonage-house in Grimsargh, occupied by the Rev. Mr. Grainger. To the south is the antique residence, called "Red Seal," the seat of Mrs. Cross, relict of the late W. Cross, Esq., which mansion is surrounded by a profusion of beautiful scenery. In this direction is another bridge, built of wood, under which the line is constructed; it then passes the garden of Grimsargh School, and thence, without any material angle or curve, proceeds under another bridge, near to Ribblesden town. Thence it proceeds in a regular direction to the terminus, near St. Paul's Church, Preston.—*Preston Chronicle.*

IRISH RAILWAYS.—(From a Correspondent.)—The committee which has been sitting at the Commercial-buildings, Dublin, for some weeks past, upon the subject of railways in Ireland, and which is understood to represent the views of private enterprise in contradistinction to the Charlemont-house committee, which inclines to the Government plan, has, it seems, agreed to a report, which was presented to Lord Morpeth by a deputation on Saturday last. Sir S. O'Malley, Bart., Messrs. James Dwyer, St. George, Birmingham, &c., formed the deputation, and explained the labours of the committee, and the conclusions arrived at. The interview lasted more than an hour. Lord Morpeth is reported to have expressed himself decidedly against any grants of public money for railways, and to have characterised the hope of such a thing as a mere delusion. He added, however, that he thought the introduction of railways into Ireland might be encouraged by loans. The deputation, as we are informed, withdrew with a conviction that the scheme, if ever it really existed, of making railways in Ireland at the public expense, has been utterly abandoned by the Irish government.

BRUSSELS, DEC. 10.—The iron railroad from Brussels to Quievrain is proceeding in a very satisfactory manner, and the time is not distant when our railway will reach the frontier of France.

CORNISH CHINA CLAY.—The Kaolin or China clay is very white, and more unctuous to the touch than those upon the continent of Europe. Like them it results from the decomposition of the felspar and granite, occurring in the middle of these rocks. Mr. Wedgewood found it to contain 60 of alumina or pure clay, and 40 of silica, in 100 parts.—*Ure's Dictionary of Arts.*

SULPHUR.—M. Maravigno, the Professor of Chemistry in the University of Catania, who possesses a very numerous collection of the crystallised sulphur of Sicily, refers the formation of this substance to the period of secondary rocks. He disputes the assertions of Professor Gemellaro, who pretends that sulphur owes its origin to the decomposition of molasses—an assertion which has been reproduced in Germany by Professor Leonhard, of Heidelberg. He thinks, that, whilst the secondary formations were being deposited, the currents of acid hydro-sulphuric gas, from the interior of the earth, came in contact with the blue marl held in suspension in water, and that the acid, in decomposing, produced deposits of sulphur, which are still found mingled with the marl. He notices the deplorable system still used in Sicily for extracting sulphur, in which he says that 17 parts are lost out of 18. He then describes the different forms which the crystals present, the first of which has been discovered by him; it is that of a straight rectangular prism, the solid angles of which are truncated, and replaced by triangular facets.

It is a source of much satisfaction to us to have it in our power to announce, that such arrangements have been made for proceeding with this undertaking (than which we do not think there exists at the present time one of more importance to the commercial interests of Bristol), as leave no doubt of an Act of Parliament being applied for and obtained in the ensuing session. It will be recollected, that the Bill brought before Parliament in 1837 was defeated through the instrumentality of a rival company formed in Gloucester for the promotion of the same object as that contemplated by this company, viz., the formation of a railway between Bristol and Gloucester. We now understand that this opposition has not only been withdrawn, but that the promoters of the Gloucester measure have agreed to join the extension company, and to become shareholders in that undertaking; thus giving it the benefit of their aid and support, both in a pecuniary point of view and in the promotion of the measures necessary for carrying the Bill through Parliament. Upon so satisfactory an arrangement of this, the great difficulty which the directors have had to contend with, we beg to offer our congratulations to our fellow-citizens and to the subscribers, who are, we think, much indebted to the directors for their exertions towards the attainment of this important object, and the judgment they have displayed in bringing it to so successful and satisfactory a result. In anticipation of success attending their treaty with the gentlemen of Gloucester, they have caused the standing orders relative to notices and deposits to be complied with. So far, therefore, as these measures are concerned, they are now in a situation to proceed with the Bill, which will be brought into Parliament in the next session. It has, we understand, been arranged, that as the funds already paid by way of deposit are sufficient for proceeding with the Bill, no further deposits to be paid by the existing subscribers, or by new subscribers, will be subject to the expenses, except in the event of the Act being obtained; when, of course, all moneys paid will form part of the joint-stock of the company. This arrangement has been made for the purpose of securing the subscribers, in the event of the application proving unsuccessful, from loss of any part of the additional deposit which the new standing orders require to be paid up and invested in government securities before the Bill will be allowed to proceed. It is also intended to be provided for the benefit of the existing shareholders, and of those of the Gloucester company who have transferred their shares to this undertaking, that when the Act shall be obtained, the past expenses incurred by both parties in the unsuccessful application to Parliament of 1837, shall be repaid to them in full. These are, we think, most judicious and satisfactory arrangements. The existing shareholders will thereby not only be secured against any loss in paying the further deposit required by the standing orders, but by making that payment and by the aid of new subscriptions (which will not be subject to the objection which usually deters parties from entering into undertakings of this description, viz., that of the liability of their deposits being expended in an unsuccessful application to Parliament), they will be enabled to recover their past losses. The remaining subscriptions required to be raised, amount, we believe, to 50,000l., or 1000 shares. Originally, the whole of the shares required were subscribed; but the necessity of obtaining the above arises in consequence of the relinquishment of their shares by some of the subscribers, who, after the general meeting held in February last, exercised the option then given them of retiring from the undertaking, on being repaid their proportion of the fund then in hand. This we understand to be the outline of the terms upon which it is proposed to proceed with the undertaking, and it holds out such unusual advantages to the subscribers, that we can entertain no doubt of the remaining shares being promptly applied for.—*Bristol Journal.*

## EDINBURGH AND NEWCASTLE RAILWAY.

Mr. George Stephenson, in his report to the committee appointed to adopt preparatory measures for the formation of a railway from Newcastle to Edinburgh, after a careful examination of the two lines proposed, and considering their relative merits in a national, commercial, and local point of view, states, in reference to the coast line by Berwick, that he never examined a country for a line of railway on which the works to be executed were of an easier description, or the levels and inclinations of a more favourable character. By carrying the line near the sea-coast, nearly throughout the whole distance, the necessity of a great number of occupation and public road bridges is avoided; and throughout the whole route there does not appear to him to be a single difficulty of any importance. Of the midland line, commencing at Newcastle and running near Stamfordham, Otterburn, crossing the Carter Fell, by Jedburgh, Melrose, Galashiels, to Peebles, and diverging from thence to Edinburgh and Glasgow, he observes, that after examining this route, he found the country present difficulties so great in amount, that he did not hesitate to say it was quite impracticable for locomotive inclinations. The tunnelling of the Carter Fell alone could not be less than eight miles, in order to obtain suitable gradients for locomotive engines; a difficulty which, without taking numerous other obstacles into account, Mr. Stephenson considered put an end at once to all discussion upon the subject. Mr. S. states in his report to the directors of the Edinburgh and Dunbar Railway, with which the coast line from Newcastle would communicate, that from what he knew of the country, and the various routes which have been proposed through the east, centre, and west of the island, between England and Scotland, that no line could be found equal to the one on the eastern coast, both as regards gradients, expense, and population. By adopting the low country line great facilities would be afforded for constructing cheap branches into the interior of the country, and up the various valleys, which run nearly at right angles to the main line; for instance, those productions, both agricultural and mineral, which are found in Northumberland and Scotland, might be conveyed on branch railways running up the valleys of the Blyth, the Wansbeck, the Coquet, and the Tweed, from the places where they are produced to the main line of railway, from whence they could be carried north or south, as might be required. Mr. Stephenson, in concluding his report, congratulates the directors upon the favourable nature of the country, and the great facilities which exist for constructing the works on the coast line, with the firm conviction that the latter is the only feasible and desirable line of railway, with levels to which locomotive steam power could be advantageously applied, between the town of Newcastle-upon-Tyne and the cities of Edinburgh and Glasgow.

## GLASGOW, PAISLEY, AND GREENOCK RAILWAY.

We learn that the directors, at their last meeting, let the two remaining contracts on this line, Mr. Brassey having gained the Walkinshaw, and Mr. McKenzie the Finlayson. Judging from the rapid progress already made by these gentlemen at Arkleston and Bishopston, there is no doubt but the opening of the railway to the public in the early part of the summer of 1840 is secured. We understand that at the Bishopston ridge nearly 100,000 cubic yards have been excavated; that one steam engine is already at work for pumping the water and hauling the rock from the tunnels, and that another engine is preparing here at Messrs. Johnston's works. At Arkleston the same rapid progress has been made, the tunnel-shaft is completed, and the tunnel commenced. About 90,000 cubic yards have been excavated, and ballast of a superior quality has been found in great abundance. In this town the masonry for carrying the railway over the streets is proceeding rapidly for the season; four arches are turned, several others are in hand, and a length of wall is built. The works are equally stirring at Port-Glasgow, where, for nearly half the length of the town, the masonry is in progress. In Paisley the large bridge over the River Cart is built above flood water, which is very creditable to the contractor, Mr. Lyon, who only commenced work late in the season. The bridges over Gilmour-street and Greenlaw-street, together with the retaining walls, are also considerably advanced. Two cargoes of rails have arrived from Bristol, and several miles of the road will be laid early in the spring. The energy and judgment displayed by the directors in their management is creditable to them, and must be satisfactory to the shareholders, for we are glad to observe that without efforts being resorted to for that purpose, the shares hold a most respectable position in railway stock, even in this the dullest month in the year, although the real merits of the line are so little known beyond our own neighbourhood. If some of the wealthy capitalists, who judge for themselves, could but see the floating population which is constantly passing, they would not be surprised to learn that the engineer was directed, at the last meeting of the board, to prepare engines and carriages for 2000 passengers and 300 tons of goods per diem.—*Greenock Advertiser.*

NEW PARCHMENT.—M. Pelouze states, that, if a piece of paper be plunged into nitric acid at 1.5 of density, and left in it a sufficient time for saturation, say two or three minutes, and immediately washed in plenty of water, a species of parchment is produced, which is impervious to damp, and is extremely combustible; and that the same change takes place in cotton and linen stuffs. They owe this property to the xylidine, which M. Pelouze has found in starch, when treated with nitric acid and water.

ANTHRACITE FORMATION OF PENNSYLVANIA.—This formation occupies a space of 200 miles long by about 30 broad, having its beds often cropping out above the level of the running waters of the country. These beds are from four to nine feet in thickness, and the coal has a specific gravity of 1.279, containing 22½ per cent. of volatile matter. Its dip is generally very trifling, being one inch in a yard, so that it is easily worked by lead drifts; in one place, however, there is a greater dip, it there forming an angle of about 30°. It is used in the iron manufactories of Pittsburg, but for smelting the ore the miners prefer charcoal.



AS SUPPLIED AT THE PRINCIPAL MINES IN THE FOLLOWING MONTHS



